

**TRIP REPORT  
FOR  
DELTA SHIPYARD REASSESSMENT  
200 DEAN COURT  
HOUma, TERREBONNE PARISH, LOUISIANA**

Prepared for

**U.S. Environmental Protection Agency**  
Linda Carter, Project Officer  
1445 Ross Avenue  
Dallas, Texas 75202

Contract No. EP-W-06-042  
TDD No. TO-0019-11-10-01  
WESTON W.O. No. 20406.012.019.0680.01  
NRC No. N/A  
FPN N/A  
CERCLIS ID LAD058475419  
EPA SAM Brenda Nixon Cook  
START-3 PTL Michelle Brown

Submitted by

**Weston Solutions, Inc.**  
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San Antonio, Texas 78216  
(210) 308-4300

26 March 2013

## TRIP REPORT

### PROJECT IDENTIFICATION

**Date:** 26 March 2013

**To:** Brenda Nixon Cook, Site Assessment Manager (SAM)  
U.S. Environmental Protection Agency (EPA)  
Region 6, Prevention and Response Branch

**Through:** Linda Carter, Project Officer (PO)  
EPA Region 6, Program Management Branch

**Through:** Robert Beck, VP, P.E., Weston Solutions, Inc. (WESTON®)  
EPA Region 6, Superfund Technical Assessment and Response Team (START-3)  
Program Manager

**From:** Michelle Brown, WESTON  
EPA Region 6, START-3 Project Team Leader

**Subject:** Trip Report: Delta Shipyard Reassessment  
200 Dean Court, Houma, Terrebonne Parish, Louisiana  
Contract No. EP-W-06-042  
TDD No. TO-0019-11-10-01  
W.O. No. 20406.012.019.0680.01  
NRC No. N/A  
FPN N/A  
CERCLIS ID LAD058475419  
Latitude/Longitude: 29.565818° North, 90.705141° West

Latitude and Longitude coordinates were measured from the center of Pit 2 surface impoundment and were determined using a scaled topographic map and ESRI ArcMap software.

### SITE LOCATION AND DESCRIPTION

The former Delta Shipyard is located at 200 Dean Court in southeastern Houma, Terrebonne Parish, Louisiana. The geographic coordinates of the site are Latitude 29.565818° North, Longitude 90.705141° West. The site can be reached by traveling south on U.S. Highway 90 from New Orleans to Houma. Turn east on Main Street, and travel approximately 0.75 miles to Grand Caillou Road. On Grand Caillou Road, travel approximately 2.2 miles to Industrial Boulevard. On Industrial Boulevard turn west and, after approximately 1.5 miles, turn south on

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Dean Court.

The site property once consisted of 165 acres and was home to 7 divisions of Delta Ironworks, including Delta Shipyard. In 1973, Delta Ironworks was merged into Chromalloy American Corporation of St. Louis, Missouri. Chromalloy maintained all 7 of the divisions until November 1980, when 5 of the divisions were sold to Delta Services Industries of Houma, Louisiana, including Delta Shipyard. Mr. Lynn Dean (of Dean Boats, Inc.) purchased 110 acres of the industrial park from Delta Services in 1986 including the property occupied by Delta Shipyard.

Delta Shipyard consisted of a cleaning and repair facility for small cargo boats, fishing boats, and oil barges. Before repair work could begin, the boats had to be certified vapor free by the U.S. Coast Guard. In order to accomplish this, the boats were first steam cleaned to remove oily wastes. Recovered oil that was still deemed usable was recovered and sold. Oily waste from the cleaning process was stored in several unlined earthen pits used as evaporation ponds. These pits were reportedly also used to dispose of oil field drilling material.

Currently, there are three open evaporation pits and two backfilled pit areas located on-site. The three open pits are uncovered and the contents exposed to the elements. The pits have no vegetation growing on them and have a crusty layer on the surface and their surrounding berms. The berms are not maintained, contain heavy vegetation, and appear to be insufficient to contain the contents of the pits during a rain event. The crusty layer on the pits is black and appears to be a dried oil/petroleum type waste. The two backfilled pit areas contain vegetation and trash and are differentiated from the surrounding land as mounds within a relatively flat topographic area.

For the purposes of this reassessment, the Delta Shipyard site (Site) will be defined as outlined in the HRS (Section 1.1, Definitions), as “[a]rea(s) where a hazardous substance has been deposited, stored, disposed, or placed, or has otherwise come to be located”. The Site consists of the three open pits (Pits 1 through 3, also called impoundments), the two historical backfilled pits, and the surrounding area. This Site area is approximately 11 acres and entirely within an established wetland area.

Facility Layout Maps are provided in Attachment A.

## SUMMARY OF ACTIONS

On 31 May 2012, the U.S. Environmental Protection Agency Region 6, Prevention and Response Branch (EPA-PRB) tasked the Superfund Technical Assessment and Response Team (START-3) contractor, to perform Supplemental Sampling of the Delta Shipyard site (Attachment G). As part of this tasking, a Quality Assurance Sampling Plan (QASP) and a Health and Safety Plan (HASP) were prepared and approved by the EPA Site Assessment Manager (SAM) prior to site mobilization.

On 06 thorough 10 August 2012, START-3 collected: 16 surface water and 16 sediment samples (including duplicates of each matrix) from locations within Company Canal, Houma Navigation Canal, and Bayou La Carpe; 17 surface soil/sediment samples (including 1 duplicate) and 51 subsurface soil samples (including 3 duplicates) from overland flow pathways at the Delta Shipyard site; and 14 waste samples from various depths at the open pit sources at the Site. The background surface water and sediment samples were collected from locations upstream of the facility within Company Canal and from within upstream waterways entering the surface water pathway in order to establish whether a release of contaminants from the site could be established, as well as upgradient of the pits within the wetland.

The samples were collected according to the QASP approved by the EPA SAM. The surface water samples were collected from shallow depths by submerging the sample container into the water. The container's mouth was positioned so that it faced upstream, while the sampling personnel stood downstream so as not to stir up sediment that could potentially contaminate the sample. The sediment samples were collected with disposable plastic scoops and then transferred to an 8-ounce sample container. The samples were collected from 0 to 12 inches from below ground surface from locations within the waterways where sediments had accumulated such as near banks and bends in the waterways. Most soil samples were collected using a Geoprobe® subsurface coring device. The Geoprobe® cores were advanced to a depth of 8 feet below ground surface with samples collected at 0 to 12 inches, 1 to 2 feet, 2 to 4 feet, 4 to 6 feet, and 6 to 8 feet. A few of the soil samples collected were surface samples only and were

collected from 0 to 12 inches using a plastic disposable scoop. Many of these soil samples, especially at the surface, could also be defined as sediments due to their high moisture content. They were all collected within a defined wetland area. Once collected, surface water, sediment and soil sample bottles were placed on ice until shipping. Sampling activities were logged by START-3 in field logbooks. The sample locations are depicted on a figure presented in Attachment B.

The samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semivolatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs) by the Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organic Analysis, SOM01.2, and Target Analyte List (TAL) metals with mercury by CLP SOW Multi-Media, Multi-Concentration Inorganics Analysis, ISM01.3. The waste samples for all analyses, as well as surface water and sediment samples for TAL metals and mercury were submitted to the EPA Region 6 Environmental Services Branch Laboratory, located in Houston, Texas. The soil samples for TAL metals and mercury went to CLP Laboratory CHEMTECH located in Mountainside, New Jersey. Water, sediment and soil samples analyzed for VOCs, SVOCs, pesticides, and PCBs went to CLP Laboratory MITKEM located in Warwick, Rhode Island. All samples were shipped via Federal Express by overnight delivery and accompanied by a chain of custody.

Final analytical results were received from the laboratories between 7 September and 9 October 2012. A summary of analytical results are presented in Attachment C

START-3 has also included logbook documentation as Attachment D. EPA Region 6 Final Analytical Reports and CLP Final Analytical Reports are included as Attachments E and F.

## 1. LIST OF ATTACHMENTS

- A. Site Area Map
- B. Sample Location Maps
- C. Summary of Analytical Results
- D. START-3 Site Logbooks

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E. Region 6 Laboratory Final Analytical Report for Delta Shipyard

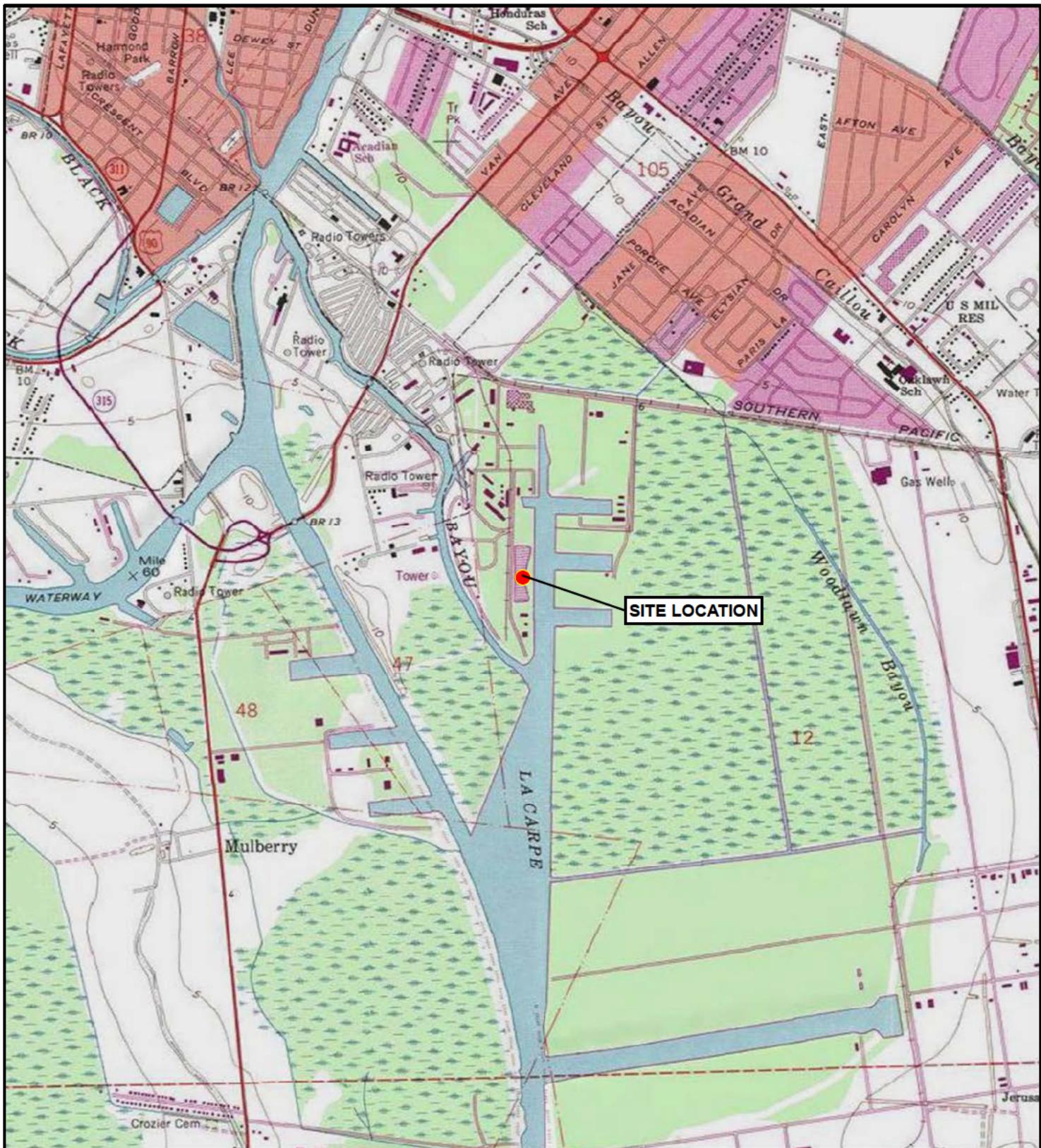
F. CLP Final Analytical Reports for Delta Shipyard

G. TDD No. TO-0019-10-11-01 and Amendments A through I

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**ATTACHMENT A**

**SITE AREA MAP**



0 2,000 4,000

SCALE IN FEET



**US EPA REGION 6  
START-3**

**LEGEND**

● SITE LOCATION

SOURCE: NATIONAL GEOGRAPHIC TOPO  
TDD NO: TO-0019-11-10-01  
CERCLIS NO: LAD058475419

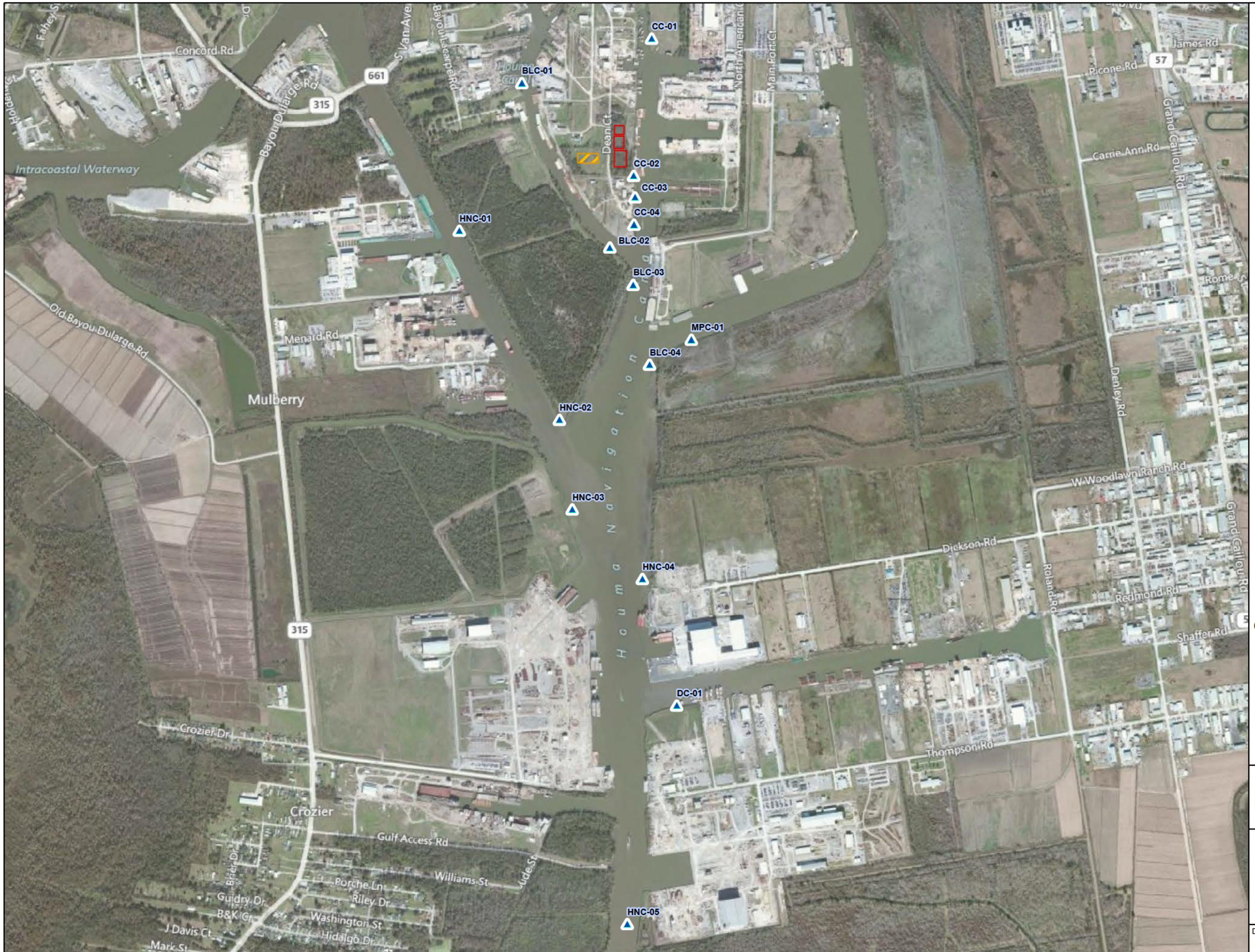


**ATTACHMENT A  
SITE AREA MAP  
DELTA SHIPYARD REASSESSMENT  
200 DEAN COURT, HOUma  
TERREBONNE PARISH, LOUISIANA**

DATE MARCH, 2013	PROJECT NO 20406.012.019.0680.01	SCALE AS SHOWN
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**ATTACHMENT B**  
**SAMPLE LOCATION MAPS**





0 1,200 2,400  
Feet

TDD NO: TO-0019-11-10-01  
CERCLIS NO: LAD058475419

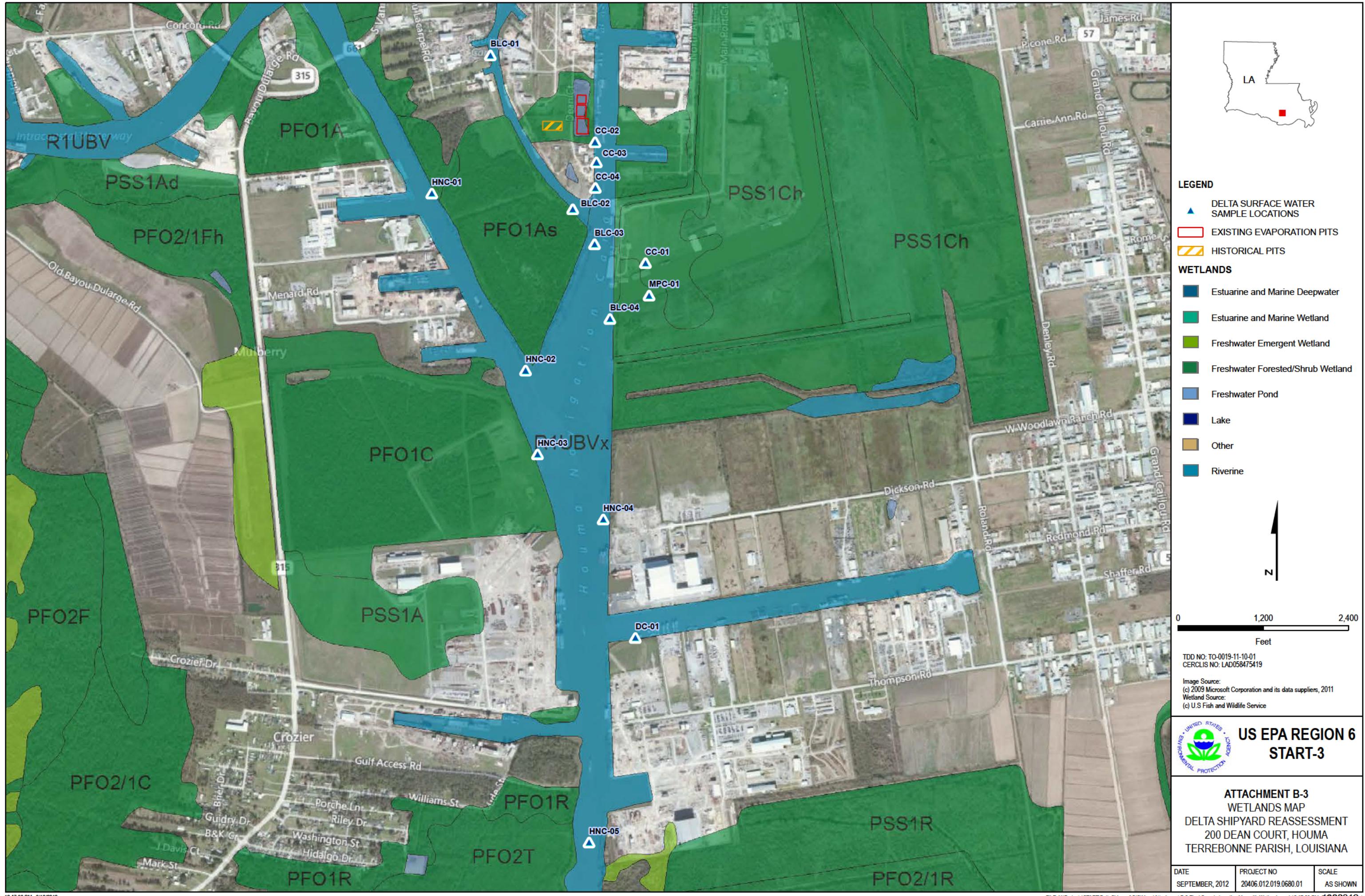
Image Source:  
(c) 2009 Microsoft Corporation and its data suppliers, 2011



## US EPA REGION 6 START-3

**ATTACHMENT B-2**  
SEDIMENT & SURFACE WATER  
LOCATIONS SAMPLE MAP  
DELTA SHIPYARD REASSESSMENT  
200 DEAN COURT, HOUMA  
TERREBONNE PARISH, LOUISIANA

DATE	PROJECT NO	SCALE
SEPTEMBER, 2012	20406.012.019.0680.01	AS SHOWN



**ATTACHMENT C**  
**SUMMARY OF ANALYTICAL RESULTS**

**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-12-515 08/06/2012 Field Sample	DSE-05-12-515 08/08/2012 Field Sample	DSE-06-12-515 08/07/2012 Field Sample	DSE-07-12-515 08/06/2012 Field Sample	DSE-08-12-515 08/07/2012 Field Sample
<b>Metals</b>											
Aluminum	mg/kg	24900	990000		3000000	--	12900	7700	10600	13900	13200
Antimony	mg/kg	9	410	81.76	1200	--	3.5	J-	9.1	J-	6.6
Arsenic	mg/kg	40.8	1.6	11.5	160	--	28.7		20.7		24.5
Barium	mg/kg	25140	190000	14308	570000	--	5370		5430		12200
Beryllium	mg/kg	2.58	2000	408.8	6000	--	0.9		0.69		0.83
Cadmium	mg/kg	3.6	800	100.8685353	2400	--	0.39	J	4.2	J+	3.5
Calcium	mg/kg	21390				--	31100		12300		17700
Chromium	mg/kg	277.8				--	18.4		431		143
Cobalt	mg/kg	21.9	300	12264	910	--	7		6	J	11.5
Copper	mg/kg	142.8	41000	8176	120000	--	28.3		66.7		71.9
Iron	mg/kg	57600	720000		2100000	--	19500		22300		25400
Lead	mg/kg	633	800	1400	800	--	159	J	791		518
Magnesium	mg/kg	11520				--	4570		3100		3810
Manganese	mg/kg	1524	23000			--	243		525		565
Mercury	mg/kg	0.81	43		130	--	0.25		1.2		0.84
Nickel	mg/kg	85.2	20000	4088	59000	--	25.4		25.7	J	32.7
Potassium	mg/kg	3660				--	1930		1620		1680
Selenium	mg/kg	6.9	5100	1022	15000	--	1.4	J	2.6	J	1.3
Silver	mg/kg	2.04	5100	1022	15000	--	0.36	J	3.6		2
Sodium	mg/kg	957				--	906		282	J	516
Vanadium	mg/kg	69.6		1430.8		--	29.7		20.3		26.2
Zinc	mg/kg	978	310000	61320	920000	--	116	J	770		686
<b>Organic</b>											
2-Butanone	mg/kg	0.039	200000	4351.295519	590000	--	0.012	U	0.014	U	0.011
2-Methylnaphthalene	mg/kg	0.66	2200	165.2673834	6600	--	0.24	U	0.2	J	0.21
4,4'-DDT	mg/kg	0.0129	7	11.86672004	700	--	0.0045	U	0.0046	U	0.0062
Acenaphthylene	mg/kg	0.66		5140.530475		--	0.41		0.23	U	0.21
Acetone	mg/kg	0.0234	630000	1394.143988	1900000	--	0.012	U	0.014	U	0.011
Acetophenone	mg/kg	0.66	100000		310000	--	0.34		0.13	J	0.059
Anthracene	mg/kg	0.66	170000	47808.42095	500000	--	0.12	J	0.1	J	0.059
Aroclor-1260	mg/kg	0.066	0.74		74	--	0.045	U	0.024	J	0.041
Benzo(a)anthracene	mg/kg	0.237	2.1	2.868199367	210	--	0.13	J	0.23	U	0.054
Benzo(a)pyrene	mg/kg	0.24	0.21	0.33	21	--	0.22	J	0.19	J	0.065
Benzo(b)fluoranthene	mg/kg	0.3	2.1	2.868329304	210	--	0.34		0.23	U	0.088
Benzo(g,h,i)perylene	mg/kg	0.186				--	0.39		0.26		0.13
Benzo(k)fluoranthene	mg/kg	0.27	21	28.79427687	2100	--	0.19	J	0.23	U	0.044
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	120	173.0325248	12000	--	0.24	U	0.23	J	0.15
Carbazole	mg/kg	0.66				--	0.24	U	0.23	U	0.21
Chrysene	mg/kg	0.3	210	285.5245365	21000	--	0.18	J	0.074	J	0.088



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-12-515 08/06/2012 Field Sample	DSE-05-12-515 08/08/2012 Field Sample	DSE-06-12-515 08/07/2012 Field Sample	DSE-07-12-515 08/06/2012 Field Sample	DSE-08-12-515 08/07/2012 Field Sample	
Dibenzo(a,h)anthracene	mg/kg	0.66	0.21	0.33	21	--	<b>0.075</b>	U	0.23	U	0.21	U
Di-n-butylphthalate	mg/kg	0.153	62000		180000	--	<b>0.051</b>	U	0.23	UJv	<b>0.07</b>	U
Endrin ketone	mg/kg	0.0129				--	0.0045	U	0.0046	U	0.0042	U
Fluoranthene	mg/kg	0.66	22000	2885.39429	66000	--	<b>0.14</b>	U	0.23	U	<b>0.12</b>	U
gamma-Chlordane	mg/kg	0.0066				--	0.0023	U	<b>0.0012</b>	U	0.0022	U
Heptachlor	mg/kg	0.0066	0.38	0.035422806	38	--	0.0023	U	0.0024	U	0.0022	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	2.1	2.882233474	210	--	<b>0.26</b>		<b>0.081</b>	U	<b>0.075</b>	U
Methyl acetate	mg/kg	0.0174	1000000		3100000	--	0.0061	U	0.007	U	0.0054	U
Methylene chloride	mg/kg	0.0174	960	44.33290307	9200	--	0.0061	U	0.007	U	0.0054	U
Naphthalene	mg/kg	0.66	18	42.59771533	1800	--	0.24	U	<b>0.085</b>	U	0.21	U
Phenanthrene	mg/kg	0.39		42533.41269		--	0.24	U	<b>0.057</b>	U	<b>0.057</b>	U
Phenol	mg/kg	0.66	180000	14532.1499	550000	--	<b>0.068</b>	U	0.23	U	0.21	U
Pyrene	mg/kg	0.42	17000	5606.69618	50000	--	<b>0.12</b>	U	0.23	U	<b>0.1</b>	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMILs Industrial Soil	Sample ID Date Sample Type	DSE-10-12-515 08/06/2012 Field Sample	DSE-11-12-515 08/09/2012 Field Sample	DSE-11-48-515 08/09/2012 Field Sample	DSE-11-72-515 08/09/2012 Field Sample	DSE-11-96-515 08/09/2012 Field Sample
<b>Metals</b>											
Aluminum	mg/kg	24900	990000		3000000	--	6720		8750		9550
Antimony	mg/kg	9	410	81.76	1200	--	6.1	J-	1.8	LJ-	0.65
Arsenic	mg/kg	40.8	1.6	11.5	160	--	18.3		10.4		7.7
Barium	mg/kg	25140	190000	14308	570000	--	11400		6320	J-	852
Beryllium	mg/kg	2.58	2000	408.8	6000	--	0.49	J+	0.88		1
Cadmium	mg/kg	3.6	800	100.8685353	2400	--	3.8		1.9		0.65
Calcium	mg/kg	21390				--	12100		7280		7420
Chromium	mg/kg	277.8				--	40.7		27.8		15.1
Cobalt	mg/kg	21.9	300	12264	910	--	4.9		8.1		7.7
Copper	mg/kg	142.8	41000	8176	120000	--	54.5		41.1	J	22.5
Iron	mg/kg	57600	720000		2100000	--	15200		20900		18500
Lead	mg/kg	633	800	1400	800	--	607	J	103		26.6
Magnesium	mg/kg	11520				--	2790		3910		4410
Manganese	mg/kg	1524	23000			--	389		555	J	176
Mercury	mg/kg	0.81	43		130	--	0.85		0.16		0.066
Nickel	mg/kg	85.2	20000	4088	59000	--	20		27.6		23.2
Potassium	mg/kg	3660				--	961		1470		1550
Selenium	mg/kg	6.9	5100	1022	15000	--	1.4	LJ	2.6	LJ	2.7
Silver	mg/kg	2.04	5100	1022	15000	--	2.5		0.2	LJ	1.3
Sodium	mg/kg	957				--	314	LJ	307	LJ	913
Vanadium	mg/kg	69.6		1430.8		--	19.2		24.6		30
Zinc	mg/kg	978	310000	61320	920000	--	628	J	302	J-	68.8
<b>Organic</b>											
2-Butanone	mg/kg	0.039	200000	4351.295519	590000	--	0.021		0.012	U	0.019
2-Methylnaphthalene	mg/kg	0.66	2200	165.2673834	6600	--	0.25	U	0.39		0.3
4,4'-DDT	mg/kg	0.0129	7	11.86672004	700	--	0.0049	U	0.0045	U	0.0058
Acenaphthylene	mg/kg	0.66		5140.530475		--	0.25	U	0.23	U	0.3
Acetone	mg/kg	0.0234	630000	1394.143988	1900000	--	0.076		0.012	U	0.072
Acetophenone	mg/kg	0.66	100000		310000	--	0.1	LJ	0.23	U	0.14
Anthracene	mg/kg	0.66	170000	47808.42095	500000	--	0.25	U	0.23	U	0.3
Aroclor-1260	mg/kg	0.066	0.74		74	--	0.049	UJv	0.046	U	0.058
Benzo(a)anthracene	mg/kg	0.237	2.1	2.868199367	210	--	0.25	U	0.047	LJ	0.3
Benzo(a)pyrene	mg/kg	0.24	0.21	0.33	21	--	0.25	U	0.047	LJ	0.3
Benzo(b)fluoranthene	mg/kg	0.3	2.1	2.868329304	210	--	0.25	U	0.063	LJ	0.3
Benzo(g,h,i)perylene	mg/kg	0.186				--	0.25	U	0.23	U	0.3
Benzo(k)fluoranthene	mg/kg	0.27	21	28.79427687	2100	--	0.25	U	0.23	U	0.3
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	120	173.0325248	12000	--	0.25	UJv	0.23	U	0.3
Carbazole	mg/kg	0.66				--	0.25	U	0.23	U	0.3
Chrysene	mg/kg	0.3	210	285.5245365	21000	--	0.25	U	0.052	LJ	0.3



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-12-515 08/06/2012 Field Sample	DSE-11-12-515 08/09/2012 Field Sample	DSE-11-48-515 08/09/2012 Field Sample	DSE-11-72-515 08/09/2012 Field Sample	DSE-11-96-515 08/09/2012 Field Sample	
Dibenzo(a,h)anthracene	mg/kg	0.66	0.21	0.33	21	--	0.25	U	0.23	U	0.3	UJv
Di-n-butylphthalate	mg/kg	0.153	62000		180000	--	<b>0.092</b>	<b>LJv</b>	<b>0.059</b>	<b>U</b>	0.3	UJv
Endrin ketone	mg/kg	0.0129				--	0.0049	U	0.0045	U	0.0058	U
Fluoranthene	mg/kg	0.66	22000	2885.39429	66000	--	0.25	U	<b>0.11</b>	<b>U</b>	0.3	UJv
gamma-Chlordane	mg/kg	0.0066				--	0.0025	U	0.0023	U	0.003	U
Heptachlor	mg/kg	0.0066	0.38	0.035422806	38	--	0.0025	U	0.0023	U	0.003	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	2.1	2.882233474	210	--	0.25	U	0.23	U	0.3	UJv
Methyl acetate	mg/kg	0.0174	1000000		3100000	--	<b>0.008</b>		0.0061	U	0.0094	U
Methylene chloride	mg/kg	0.0174	960	44.33290307	9200	--	0.0072	U	0.0061	U	0.0094	U
Naphthalene	mg/kg	0.66	18	42.59771533	1800	--	0.25	U	<b>0.11</b>	<b>U</b>	0.3	U
Phenanthrene	mg/kg	0.39		42533.41269		--	0.25	U	<b>0.12</b>	<b>U</b>	0.3	U
Phenol	mg/kg	0.66	180000	14532.1499	550000	--	0.25	U	0.23	U	0.3	U
Pyrene	mg/kg	0.42	17000	5606.69618	50000	--	<b>0.061</b>	<b>L</b>	<b>0.089</b>	<b>U</b>	0.3	UJv

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-13-12-515 08/07/2012 Field Sample	DSE-14-12-515 08/09/2012 Field Sample	DSE-16-12-515 08/07/2012 Field Sample	DSE-17-01-514 08/10/2012 Field Sample	DSE-18-01-514 08/10/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	24900	990000		3000000	--	17300		9860		15200	
Antimony	mg/kg	9	410	81.76	1200	--	4.4	LJ-	1.2	LJ-	3.5	LJ-
Arsenic	mg/kg	40.8	1.6	11.5	160	--	35.2		13.8		24.3	J
Barium	mg/kg	25140	190000	14308	570000	--	11800		1750	J-	10600	J
Beryllium	mg/kg	2.58	2000	408.8	6000	--	1		1		0.9	
Cadmium	mg/kg	3.6	800	100.8685353	2400	--	0.95		0.34	LJ	1.1	
Calcium	mg/kg	21390				--	8220		11400		19600	J
Chromium	mg/kg	277.8				--	36.4		16.6		37.9	
Cobalt	mg/kg	21.9	300	12264	910	--	13.4		12.4		12.3	
Copper	mg/kg	142.8	41000	8176	120000	--	35.8		23.7	J	49.4	
Iron	mg/kg	57600	720000		2100000	--	25300		24200		24900	J
Lead	mg/kg	633	800	1400	800	--	129	J	37		109	
Magnesium	mg/kg	11520				--	5900		5330		5580	J
Manganese	mg/kg	1524	23000			--	936		668	J	594	J
Mercury	mg/kg	0.81	43		130	--	0.19		0.061	LJ	0.21	
Nickel	mg/kg	85.2	20000	4088	59000	--	39.2		34.3		34.4	
Potassium	mg/kg	3660				--	2830		1760		2430	
Selenium	mg/kg	6.9	5100	1022	15000	--	1.7	LJ	2.7	LJ	1.5	LJ
Silver	mg/kg	2.04	5100	1022	15000	--	0.59	LJ	0.96	U	0.46	LJ
Sodium	mg/kg	957				--	405	LJ	206	LJ	698	
Vanadium	mg/kg	69.6		1430.8		--	39.1		37.1		33.9	
Zinc	mg/kg	978	310000	61320	920000	--	217	J	148	J-	375	J
<b>Organic</b>												
2-Butanone	mg/kg	0.039	200000	4351.295519	590000	--	0.063		0.0078	LJ	0.058	
2-Methylnaphthalene	mg/kg	0.66	2200	165.2673834	6600	--	0.24	U	0.23	U	0.25	U
4,4'-DDT	mg/kg	0.0129	7	11.86672004	700	--	0.0048	U	0.0045	U	0.005	U
Acenaphthylene	mg/kg	0.66		5140.530475		--	0.24	U	0.23	U	0.25	U
Acetone	mg/kg	0.0234	630000	1394.143988	1900000	--	0.067		0.012	U	0.06	
Acetophenone	mg/kg	0.66	100000		310000	--	0.24	U	0.23	U	0.25	U
Anthracene	mg/kg	0.66	170000	47808.42095	500000	--	0.24	U	0.23	U	0.25	U
Aroclor-1260	mg/kg	0.066	0.74		74	--	0.048	U	0.045	U	0.05	U
Benzo(a)anthracene	mg/kg	0.237	2.1	2.868199367	210	--	0.24	UJv	0.23	U	0.25	U
Benzo(a)pyrene	mg/kg	0.24	0.21	0.33	21	--	0.24	U	0.23	U	0.25	U
Benzo(b)fluoranthene	mg/kg	0.3	2.1	2.868329304	210	--	0.24	U	0.23	U	0.098	LJ
Benzo(g,h,i)perylene	mg/kg	0.186				--	0.24	U	0.23	U	0.053	LJ
Benzo(k)fluoranthene	mg/kg	0.27	21	28.79427687	2100	--	0.24	U	0.23	U	0.25	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	120	173.0325248	12000	--	0.24	U	0.23	U	0.25	U
Carbazole	mg/kg	0.66				--	0.24	U	0.23	U	0.25	U
Chrysene	mg/kg	0.3	210	285.5245365	21000	--	0.24	UJv	0.23	U	0.069	LJ



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-13-12-515 08/07/2012 Field Sample	DSE-14-12-515 08/09/2012 Field Sample	DSE-16-12-515 08/07/2012 Field Sample	DSE-17-01-514 08/10/2012 Field Sample	DSE-18-01-514 08/10/2012 Field Sample	
Dibenzo(a,h)anthracene	mg/kg	0.66	0.21	0.33	21	--	0.24	U	0.23	U	0.25	UJ
Di-n-butylphthalate	mg/kg	0.153	62000		180000	--	<b>0.059</b>	U	<b>0.054</b>	U	<b>0.05</b>	UJ
Endrin ketone	mg/kg	0.0129				--	0.0048	U	0.0045	U	0.005	U
Fluoranthene	mg/kg	0.66	22000	2885.39429	66000	--	<b>0.068</b>	UJv	0.23	U	<b>0.076</b>	U
gamma-Chlordane	mg/kg	0.0066				--	0.0025	U	0.0023	U	0.0026	U
Heptachlor	mg/kg	0.0066	0.38	0.035422806	38	--	0.0025	U	0.0023	U	0.0026	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	2.1	2.882233474	210	--	0.24	U	0.23	U	0.25	U
Methyl acetate	mg/kg	0.0174	1000000		3100000	--	0.0079	U	0.0061	U	0.0079	U
Methylene chloride	mg/kg	0.0174	960	44.33290307	9200	--	0.0079	U	0.0061	U	0.0079	U
Naphthalene	mg/kg	0.66	18	42.59771533	1800	--	0.24	U	0.23	U	0.25	U
Phenanthrene	mg/kg	0.39		42533.41269		--	<b>0.049</b>	U	<b>0.047</b>	U	0.25	U
Phenol	mg/kg	0.66	180000	14532.1499	550000	--	0.24	U	0.23	U	0.25	U
Pyrene	mg/kg	0.42	17000	5606.69618	50000	--	0.24	UJv	0.23	U	<b>0.094</b>	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-20-12-515 08/08/2012 Field Sample	DSE-21-12-515 08/09/2012 Field Sample	DSW-01-01-513 08/10/2012 Field Sample	DSW-01-01-523 08/10/2012 Field Duplicate	DSW-02-01-513 08/10/2012 Field Sample
<b>Metals</b>											
Aluminum	mg/kg	24900	990000		3000000	--	17100	8300	6290	6500	7580
Antimony	mg/kg	9	410	81.76	1200	--	3.6	LJ-	3	LJ-	9.9
Arsenic	mg/kg	40.8	1.6	11.5	160	--	31.7	J	13.6		25.4
Barium	mg/kg	25140	190000	14308	570000	--	7660	J	8380	J-	13600
Beryllium	mg/kg	2.58	2000	408.8	6000	--	0.93		0.86		0.66
Cadmium	mg/kg	3.6	800	100.8685353	2400	--	0.69		1.2	J+	5.2
Calcium	mg/kg	21390				--	10200	J	7130		10600
Chromium	mg/kg	277.8				--	23.6		92.6		94.8
Cobalt	mg/kg	21.9	300	12264	910	--	12.6		7.3	LJ	3.2
Copper	mg/kg	142.8	41000	8176	120000	--	28.1		47.6	J	95.1
Iron	mg/kg	57600	720000		2100000	--	23600	J	19200		25600
Lead	mg/kg	633	800	1400	800	--	78.4		211		429
Magnesium	mg/kg	11520				--	5540	J	3840		2650
Manganese	mg/kg	1524	23000			--	340	J	508	J	595
Mercury	mg/kg	0.81	43		130	--	0.17		0.27		0.54
Nickel	mg/kg	85.2	20000	4088	59000	--	33.4		28.4	J	22.9
Potassium	mg/kg	3660				--	2910		1220		1120
Selenium	mg/kg	6.9	5100	1022	15000	--	1.3	LJ	2.3	LJ	3.1
Silver	mg/kg	2.04	5100	1022	15000	--	0.2	LJ	0.68	LJ	2.2
Sodium	mg/kg	957				--	318	LJ	319	LJ	198
Vanadium	mg/kg	69.6		1430.8		--	37		23.2		18.8
Zinc	mg/kg	978	310000	61320	920000	--	153	J	326	J-	750
<b>Organic</b>											
2-Butanone	mg/kg	0.039	200000	4351.295519	590000	--	0.014	U	0.013		0.034
2-Methylnaphthalene	mg/kg	0.66	2200	165.2673834	6600	--	0.23	U	0.22	U	0.26
4,4'-DDT	mg/kg	0.0129	7	11.86672004	700	--	0.0044	U	0.0043	U	0.005
Acenaphthylene	mg/kg	0.66		5140.530475		--	0.23	U	0.22	U	0.058
Acetone	mg/kg	0.0234	630000	1394.143988	1900000	--	0.014	U	0.0078	LJ	0.021
Acetophenone	mg/kg	0.66	100000		310000	--	0.23	U	0.22	U	0.26
Anthracene	mg/kg	0.66	170000	47808.42095	500000	--	0.082	LJ	0.22	U	0.063
Aroclor-1260	mg/kg	0.066	0.74		74	--	0.044	U	0.022	LJ	0.037
Benzo(a)anthracene	mg/kg	0.237	2.1	2.868199367	210	--	0.15	LJ	0.079	U	0.098
Benzo(a)pyrene	mg/kg	0.24	0.21	0.33	21	--	0.1	LJ	0.08	U	0.12
Benzo(b)fluoranthene	mg/kg	0.3	2.1	2.868329304	210	--	0.19	LJ	0.1	U	0.24
Benzo(g,h,i)perylene	mg/kg	0.186				--	0.095	LJ	0.062	U	0.13
Benzo(k)fluoranthene	mg/kg	0.27	21	28.79427687	2100	--	0.14	LJ	0.09	U	0.094
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	120	173.0325248	12000	--	0.096	LJ	0.22	U	0.1
Carbazole	mg/kg	0.66				--	0.049	LJ	0.22	U	0.26
Chrysene	mg/kg	0.3	210	285.5245365	21000	--	0.16	LJ	0.1	U	0.14
											0.2
											0.063



**Table 1A-Industrial**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-20-12-515 08/08/2012 Field Sample	DSE-21-12-515 08/09/2012 Field Sample	DSW-01-01-513 08/10/2012 Field Sample	DSW-01-01-523 08/10/2012 Field Duplicate	DSW-02-01-513 08/10/2012 Field Sample					
Dibenzo(a,h)anthracene	mg/kg	0.66	0.21	0.33	21	--	0.23	U	0.22	U	0.26	U	0.25	U	0.25	U
Di-n-butylphthalate	mg/kg	0.153	62000		180000	--	<b>0.074</b>	<b>LJ</b>	<b>0.051</b>	<b>LJ</b>	0.26	U	0.25	U	0.25	UJv
Endrin ketone	mg/kg	0.0129				--	0.0044	U	0.0043	U	0.005	UJv	0.0049	UJv	0.0048	U
Fluoranthene	mg/kg	0.66	22000	2885.39429	66000	--	<b>0.29</b>		<b>0.22</b>	<b>LJ</b>	<b>0.13</b>	<b>LJ</b>	<b>0.23</b>	<b>LJ</b>	<b>0.095</b>	<b>LJ</b>
gamma-Chlordane	mg/kg	0.0066				--	0.0023	U	0.0022	U	0.0026	UJv	0.0025	UJv	0.0025	U
Heptachlor	mg/kg	0.0066	0.38	0.035422806	38	--	0.0023	U	0.0022	U	<b>0.0013</b>	<b>LJv</b>	0.0025	UJv	0.0025	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	2.1	2.882233474	210	--	<b>0.083</b>	<b>LJ</b>	<b>0.051</b>	<b>LJ</b>	<b>0.099</b>	<b>LJ</b>	<b>0.14</b>	<b>LJ</b>	0.25	U
Methyl acetate	mg/kg	0.0174	1000000		3100000	--	0.0068	U	0.0058	U	0.008	U	0.01	U	0.0069	U
Methylene chloride	mg/kg	0.0174	960	44.33290307	9200	--	0.0068	U	0.0058	U	<b>0.0048</b>	<b>LJ</b>	0.01	U	<b>0.0034</b>	<b>LJ</b>
Naphthalene	mg/kg	0.66	18	42.59771533	1800	--	0.23	U	0.22	U	0.26	U	0.25	U	0.25	U
Phenanthrene	mg/kg	0.39		42533.41269		--	<b>0.31</b>		<b>0.13</b>	<b>LJ</b>	<b>0.053</b>	<b>LJ</b>	<b>0.075</b>	<b>LJ</b>	<b>0.053</b>	<b>LJ</b>
Phenol	mg/kg	0.66	180000	14532.1499	550000	--	0.23	U	0.22	U	0.26	U	0.25	U	0.25	U
Pyrene	mg/kg	0.42	17000	5606.69618	50000	--	<b>0.26</b>		<b>0.14</b>	<b>LJ</b>	<b>0.16</b>	<b>LJ</b>	<b>0.27</b>		<b>0.093</b>	<b>LJ</b>

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-12-515 08/06/2012 Field Sample	DSE-05-12-515 08/08/2012 Field Sample	DSE-06-12-515 08/07/2012 Field Sample	DSE-07-12-515 08/06/2012 Field Sample	DSE-08-12-515 08/07/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	24900	77000		230000	--	12900	7700		10600		13900
Antimony	mg/kg	9	31	3.128571429	94	--	3.5	LJ-	9.1	J-	6.6	J-
Arsenic	mg/kg	40.8	0.39	11.5	39	--	28.7		20.7		24.5	J
Barium	mg/kg	25140	15000	547.5	46000	--	5370		5430		12200	J
Beryllium	mg/kg	2.58	160	15.64285714	470	--	0.9		0.69		0.83	
Cadmium	mg/kg	3.6	70	3.89979486	210	--	0.39	LJ	4.2	J+	3.5	
Calcium	mg/kg	21390				--	31100		12300		17700	J
Chromium	mg/kg	277.8				--	18.4		431		143	
Cobalt	mg/kg	21.9	23	469.2857143	70	--	7		6	J	11.5	
Copper	mg/kg	142.8	3100	312.8571429	9400	--	28.3		66.7		71.9	
Iron	mg/kg	57600	55000		160000	--	19500		22300		25400	J
Lead	mg/kg	633	400	400	400	--	159	J	791		518	
Magnesium	mg/kg	11520				--	4570		3100		3810	J
Manganese	mg/kg	1524	1800			--	243		525		565	J
Mercury	mg/kg	0.81	10		30	--	0.25		1.2		0.84	
Nickel	mg/kg	85.2	1500	156.4285714	4600	--	25.4		25.7	J	32.7	
Potassium	mg/kg	3660				--	1930		1620		1680	
Selenium	mg/kg	6.9	390	39.10714286	1200	--	1.4	LJ	2.6	LJ	1.3	LJ
Silver	mg/kg	2.04	390	39.10714286	1200	--	0.36	LJ	3.6		2	
Sodium	mg/kg	957				--	906		282	LJ	516	
Vanadium	mg/kg	69.6		54.75		--	29.7		20.3		26.2	
Zinc	mg/kg	978	23000	2346.428571	70000	--	116	J	770		686	J
<b>Organic</b>												
2-Butanone	mg/kg	0.039	28000	590.9671771	84000	--	0.012	U	0.014	U	0.011	U
2-Methylnaphthalene	mg/kg	0.66	230	22.15593188	690	--	0.24	U	0.2	LJ	0.21	U
4,4'-DDT	mg/kg	0.0129	1.7	1.712656495	110	--	0.0045	U	0.0046	U	0.0062	
Acenaphthylene	mg/kg	0.66		346.6387731		--	0.41		0.23	U	0.21	U
Acetone	mg/kg	0.0234	61000	174.2704067	180000	--	0.012	U	0.014	U	0.011	U
Acetophenone	mg/kg	0.66	7800		23000	--	0.34		0.13	LJ	0.059	LJ
Anthracene	mg/kg	0.66	17000	2188.505596	52000	--	0.12	LJ	0.1	LJ	0.21	U
Aroclor-1260	mg/kg	0.066	0.22		22	--	0.045	U	0.024	LJ	0.041	U
Benzo(a)anthracene	mg/kg	0.237	0.15	0.620205398	15	--	0.13	LJ	0.23	U	0.054	LJ
Benzo(a)pyrene	mg/kg	0.24	0.015	0.33	1.5	--	0.22	LJ	0.19	LJ	0.065	LJ
Benzo(b)fluoranthene	mg/kg	0.3	0.15	0.620217342	15	--	0.34		0.23	U	0.088	LJ
Benzo(g,h,i)perylene	mg/kg	0.186				--	0.39		0.26		0.13	LJ
Benzo(k)fluoranthene	mg/kg	0.27	1.5	6.21235289	150	--	0.19	LJ	0.23	U	0.044	LJ
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	35	34.51630075	3500	--	0.24	U	0.23	UJv	0.15	LJ
Carbazole	mg/kg	0.66				--	0.24	U	0.23	U	0.21	U
Chrysene	mg/kg	0.3	15	61.90114483	1500	--	0.18	LJ	0.074	LJ	0.088	LJ



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-12-515 08/06/2012 Field Sample	DSE-05-12-515 08/08/2012 Field Sample	DSE-06-12-515 08/07/2012 Field Sample	DSE-07-12-515 08/06/2012 Field Sample	DSE-08-12-515 08/07/2012 Field Sample	
Dibenzo(a,h)anthracene	mg/kg	0.66	0.015	0.33	1.5	--	<b>0.075</b>	U	0.23	U	0.21	U
Di-n-butylphthalate	mg/kg	0.153	6100		18000	--	<b>0.051</b>	U	0.23	UJv	<b>0.07</b>	U
Endrin ketone	mg/kg	0.0129				--	0.0045	U	0.0046	U	0.0042	U
Fluoranthene	mg/kg	0.66	2300	224.4277443	6900	--	<b>0.14</b>	U	0.23	U	<b>0.12</b>	U
gamma-Chlordane	mg/kg	0.0066				--	0.0023	U	<b>0.0012</b>	U	0.0022	U
Heptachlor	mg/kg	0.0066	0.11	0.016349678	11	--	0.0023	U	0.0024	U	0.0022	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	0.15	0.621491921	15	--	<b>0.26</b>		<b>0.081</b>	U	<b>0.075</b>	U
Methyl acetate	mg/kg	0.0174	78000		230000	--	0.0061	U	0.007	U	0.0054	U
Methylene chloride	mg/kg	0.0174	56	18.69721484	1100	--	0.0061	U	0.007	U	0.0054	U
Naphthalene	mg/kg	0.66	3.6	6.19574424	360	--	0.24	U	<b>0.085</b>	U	0.21	U
Phenanthrene	mg/kg	0.39		2108.62766		--	0.24	U	<b>0.057</b>	U	<b>0.057</b>	U
Phenol	mg/kg	0.66	18000	1287.794675	55000	--	<b>0.068</b>	U	0.23	U	0.21	U
Pyrene	mg/kg	0.42	1700	229.1608461	5200	--	<b>0.12</b>	U	0.23	U	<b>0.1</b>	U

- Concentration 3x above background
- Concentrtn above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-12-515 08/06/2012 Field Sample	DSE-11-12-515 08/09/2012 Field Sample	DSE-11-48-515 08/09/2012 Field Sample	DSE-11-72-515 08/09/2012 Field Sample	DSE-11-96-515 08/09/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	24900	77000		230000	--	6720	8750	9550	8580	7700	
Antimony	mg/kg	9	31	3.128571429	94	--	6.1	J-	1.8	LJ-	0.65	LJ-
Arsenic	mg/kg	40.8	0.39	11.5	39	--	18.3	10.4	7.7	7.3	6.3	
Barium	mg/kg	25140	15000	547.5	46000	--	11400	6320	J-	852	J-	1470
Beryllium	mg/kg	2.58	160	15.64285714	470	--	0.49	J+	0.88	1	0.98	0.87
Cadmium	mg/kg	3.6	70	3.89979486	210	--	3.8		1.9	0.65	U	0.2
Calcium	mg/kg	21390			--		12100	7280	7420	6520		6580
Chromium	mg/kg	277.8			--		40.7	27.8	15.1	13.5		10.8
Cobalt	mg/kg	21.9	23	469.2857143	70	--	4.9	8.1	7.7	6.7		9
Copper	mg/kg	142.8	3100	312.8571429	9400	--	54.5	41.1	J	22.5	J	22.8
Iron	mg/kg	57600	55000		160000	--	15200	20900		18500		15500
Lead	mg/kg	633	400	400	400	--	607	J	103	26.6		29.8
Magnesium	mg/kg	11520			--		2790	3910	4410	4000		4210
Manganese	mg/kg	1524	1800		--		389	555	J	176	J	293
Mercury	mg/kg	0.81	10		30	--	0.85		0.16	0.066	LJ	0.044
Nickel	mg/kg	85.2	1500	156.4285714	4600	--	20	27.6		23.2		22.8
Potassium	mg/kg	3660			--		961	1470		1550		1380
Selenium	mg/kg	6.9	390	39.10714286	1200	--	1.4	LJ	2.6	LJ	2.7	LJ
Silver	mg/kg	2.04	390	39.10714286	1200	--	2.5		0.2	LJ	1.3	U
Sodium	mg/kg	957			--		314	LJ	307	LJ	913	
Vanadium	mg/kg	69.6		54.75		--	19.2		24.6		30	
Zinc	mg/kg	978	23000	2346.428571	70000	--	628	J	302	J-	68.8	J-
<b>Organic</b>												
2-Butanone	mg/kg	0.039	28000	590.9671771	84000	--	0.021		0.012	U	0.019	LJ
2-Methylnaphthalene	mg/kg	0.66	230	22.15593188	690	--	0.25	U	0.39		0.3	U
4,4'-DDT	mg/kg	0.0129	1.7	1.712656495	110	--	0.0049	U	0.0045	U	0.0058	U
Acenaphthylene	mg/kg	0.66		346.6387731		--	0.25	U	0.23	U	0.3	U
Acetone	mg/kg	0.0234	61000	174.2704067	180000	--	0.076		0.012	U	0.072	
Acetophenone	mg/kg	0.66	7800		23000	--	0.1	LJ	0.23	U	0.14	LJ
Anthracene	mg/kg	0.66	17000	2188.505596	52000	--	0.25	U	0.23	U	0.3	U
Aroclor-1260	mg/kg	0.066	0.22		22	--	0.049	UJv	0.046	U	0.058	U
Benzo(a)anthracene	mg/kg	0.237	0.15	0.620205398	15	--	0.25	U	0.047	LJ	0.3	UJv
Benzo(a)pyrene	mg/kg	0.24	0.015	0.33	1.5	--	0.25	U	0.047	LJ	0.3	UJv
Benzo(b)fluoranthene	mg/kg	0.3	0.15	0.620217342	15	--	0.25	U	0.063	LJ	0.3	UJv
Benzo(g,h,i)perylene	mg/kg	0.186			--		0.25	U	0.23	U	0.3	UJv
Benzo(k)fluoranthene	mg/kg	0.27	1.5	6.21235289	150	--	0.25	U	0.23	U	0.3	UJv
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	35	34.51630075	3500	--	0.25	UJv	0.23	U	0.3	UJv
Carbazole	mg/kg	0.66			--		0.25	U	0.23	U	0.3	U
Chrysene	mg/kg	0.3	15	61.90114483	1500	--	0.25	U	0.052	LJ	0.3	UJv



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-12-515 08/06/2012 Field Sample	DSE-11-12-515 08/09/2012 Field Sample	DSE-11-48-515 08/09/2012 Field Sample	DSE-11-72-515 08/09/2012 Field Sample	DSE-11-96-515 08/09/2012 Field Sample	
Dibenzo(a,h)anthracene	mg/kg	0.66	0.015	0.33	1.5	--	0.25	U	0.23	U	0.3	UJv
Di-n-butylphthalate	mg/kg	0.153	6100		18000	--	<b>0.092</b>	LJv	<b>0.059</b>	U	0.3	UJv
Endrin ketone	mg/kg	0.0129			--		0.0049	U	0.0045	U	0.0058	U
Fluoranthene	mg/kg	0.66	2300	224.4277443	6900	--	0.25	U	<b>0.11</b>	U	0.3	UJv
gamma-Chlordane	mg/kg	0.0066			--		0.0025	U	0.0023	U	0.003	U
Heptachlor	mg/kg	0.0066	0.11	0.016349678	11	--	0.0025	U	0.0023	U	0.003	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	0.15	0.621491921	15	--	0.25	U	0.23	U	0.3	UJv
Methyl acetate	mg/kg	0.0174	78000		230000	--	<b>0.008</b>		0.0061	U	0.0094	U
Methylene chloride	mg/kg	0.0174	56	18.69721484	1100	--	0.0072	U	0.0061	U	0.0094	U
Naphthalene	mg/kg	0.66	3.6	6.19574424	360	--	0.25	U	<b>0.11</b>	U	0.3	U
Phenanthrene	mg/kg	0.39		2108.62766		--	0.25	U	<b>0.12</b>	U	0.3	U
Phenol	mg/kg	0.66	18000	1287.794675	55000	--	0.25	U	0.23	U	0.3	U
Pyrene	mg/kg	0.42	1700	229.1608461	5200	--	<b>0.061</b>	LJ	<b>0.089</b>	U	0.3	UJv

- Concentration 3x above background
- Concentrtrtion above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-13-12-515 08/07/2012 Field Sample	DSE-14-12-515 08/09/2012 Field Sample	DSE-16-12-515 08/07/2012 Field Sample	DSE-17-01-514 08/10/2012 Field Sample	DSE-18-01-514 08/10/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	24900	77000		230000	--	17300	9860	15200	9020	W	11800
Antimony	mg/kg	9	31	3.128571429	94	--	4.4	UJ-	1.2	UJ-	3.5	UJ-
Arsenic	mg/kg	40.8	0.39	11.5	39	--	35.2	13.8	24.3	J	8.1	W
Barium	mg/kg	25140	15000	547.5	46000	--	11800	1750	J-	10600	J	7440
Beryllium	mg/kg	2.58	160	15.64285714	470	--	1	1	0.9		0.79	W
Cadmium	mg/kg	3.6	70	3.89979486	210	--	0.95	0.34	UJ	1.1	1.1	WJ+
Calcium	mg/kg	21390			--		8220	11400	19600	J	9660	W
Chromium	mg/kg	277.8			--		36.4	16.6	37.9		40.9	W
Cobalt	mg/kg	21.9	23	469.2857143	70	--	13.4	12.4	12.3		5.4	WJ
Copper	mg/kg	142.8	3100	312.8571429	9400	--	35.8	23.7	J	49.4	67.3	W
Iron	mg/kg	57600	55000		160000	--	25300	24200	24900	J	34000	W
Lead	mg/kg	633	400	400	400	--	129	J	37		109	
Magnesium	mg/kg	11520			--		5900	5330	5580	J	3950	W
Manganese	mg/kg	1524	1800		--		936	668	J	594	J	406
Mercury	mg/kg	0.81	10		30	--	0.19	0.061	UJ	0.21		0.14
Nickel	mg/kg	85.2	1500	156.4285714	4600	--	39.2	34.3		34.4		30.8
Potassium	mg/kg	3660			--		2830	1760	2430		1810	W
Selenium	mg/kg	6.9	390	39.10714286	1200	--	1.7	UJ	2.7	UJ	1.5	UJ
Silver	mg/kg	2.04	390	39.10714286	1200	--	0.59	UJ	0.96	U	0.46	UJ
Sodium	mg/kg	957			--		405	UJ	206	UJ	698	
Vanadium	mg/kg	69.6		54.75		--	39.1	37.1		33.9		20.9
Zinc	mg/kg	978	23000	2346.428571	70000	--	217	J	148	J-	375	J
<b>Organic</b>												
2-Butanone	mg/kg	0.039	28000	590.9671771	84000	--	0.063		0.0078	UJ	0.058	
2-Methylnaphthalene	mg/kg	0.66	230	22.15593188	690	--	0.24	U	0.23	U	0.25	U
4,4'-DDT	mg/kg	0.0129	1.7	1.712656495	110	--	0.0048	U	0.0045	U	0.005	U
Acenaphthylene	mg/kg	0.66		346.6387731		--	0.24	U	0.23	U	0.25	U
Acetone	mg/kg	0.0234	61000	174.2704067	180000	--	0.067		0.012	U	0.06	
Acetophenone	mg/kg	0.66	7800		23000	--	0.24	U	0.23	U	0.25	U
Anthracene	mg/kg	0.66	17000	2188.505596	52000	--	0.24	U	0.23	U	0.25	U
Aroclor-1260	mg/kg	0.066	0.22		22	--	0.048	U	0.045	U	0.05	U
Benzo(a)anthracene	mg/kg	0.237	0.15	0.620205398	15	--	0.24	UJv	0.23	U	0.25	U
Benzo(a)pyrene	mg/kg	0.24	0.015	0.33	1.5	--	0.24	U	0.23	U	0.25	U
Benzo(b)fluoranthene	mg/kg	0.3	0.15	0.620217342	15	--	0.24	U	0.23	U	0.098	UJ
Benzo(g,h,i)perylene	mg/kg	0.186			--		0.24	U	0.23	U	0.053	UJ
Benzo(k)fluoranthene	mg/kg	0.27	1.5	6.21235289	150	--	0.24	U	0.23	U	0.25	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	35	34.51630075	3500	--	0.24	U	0.23	U	0.25	U
Carbazole	mg/kg	0.66			--		0.24	U	0.23	U	0.25	U
Chrysene	mg/kg	0.3	15	61.90114483	1500	--	0.24	UJv	0.23	U	0.069	UJ



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-13-12-515 08/07/2012 Field Sample	DSE-14-12-515 08/09/2012 Field Sample		DSE-16-12-515 08/07/2012 Field Sample		DSE-17-01-514 08/10/2012 Field Sample		DSE-18-01-514 08/10/2012 Field Sample		
Dibenzo(a,h)anthracene	mg/kg	0.66	0.015	0.33	1.5	--	0.24	U	0.23	U	0.25	U	0.67	UJ	0.79	UJ
Di-n-butylphthalate	mg/kg	0.153	6100		18000	--	<b>0.059</b>	UJ	<b>0.054</b>	UJ	<b>0.05</b>	UJ	0.67	UJ	0.79	UJ
Endrin ketone	mg/kg	0.0129			--	0.0048	U	0.0045	U	0.005	U	<b>0.0069</b>	UJ	0.016	UJ	
Fluoranthene	mg/kg	0.66	2300	224.4277443	6900	--	<b>0.068</b>	UJv	0.23	U	<b>0.076</b>	UJ	<b>0.71</b>	J	0.79	UJ
gamma-Chlordane	mg/kg	0.0066			--	0.0025	U	0.0023	U	0.0026	U	0.0067	UJ	0.008	UJ	
Heptachlor	mg/kg	0.0066	0.11	0.016349678	11	--	0.0025	U	0.0023	U	0.0026	U	0.0067	UJ	0.008	UJ
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	0.15	0.621491921	15	--	0.24	U	0.23	U	0.25	U	<b>0.19</b>	UJ	0.79	UJ
Methyl acetate	mg/kg	0.0174	78000		230000	--	0.0079	U	0.0061	U	0.0079	U	0.022	UJ	0.019	UJ
Methylene chloride	mg/kg	0.0174	56	18.69721484	1100	--	0.0079	U	0.0061	U	0.0079	U	0.022	UJ	0.019	UJ
Naphthalene	mg/kg	0.66	3.6	6.19574424	360	--	0.24	U	0.23	U	0.25	U	0.67	UJ	0.79	UJ
Phenanthrene	mg/kg	0.39		2108.62766		--	<b>0.049</b>	U	<b>0.047</b>	U	0.25	U	0.67	UJ	0.79	UJ
Phenol	mg/kg	0.66	18000	1287.794675	55000	--	0.24	U	0.23	U	0.25	U	0.67	UJ	0.79	UJ
Pyrene	mg/kg	0.42	1700	229.1608461	5200	--	0.24	UJv	0.23	U	<b>0.094</b>	UJ	<b>0.84</b>	J	0.79	UJ

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1A-Residential**  
**Soil Sample Analytical Results Summary at 12 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-20-12-515 08/08/2012 Field Sample	DSE-21-12-515 08/09/2012 Field Sample	DSW-01-01-513 08/10/2012 Field Sample	DSW-01-01-523 08/10/2012 Field Duplicate	DSW-02-01-513 08/10/2012 Field Sample
<b>Metals</b>											
Aluminum	mg/kg	24900	77000		230000	--	17100	8300	6290	6500	7580
Antimony	mg/kg	9	31	3.128571429	94	--	3.6	3	9.9	J-	5.1
Arsenic	mg/kg	40.8	0.39	11.5	39	--	31.7	J	13.6	25.4	23.9
Barium	mg/kg	25140	15000	547.5	46000	--	7660	J	8380	J-	13600
Beryllium	mg/kg	2.58	160	15.64285714	470	--	0.93	0.86	0.66	0.62	0.69
Cadmium	mg/kg	3.6	70	3.89979486	210	--	0.69	1.2	5.2	J+	3.7
Calcium	mg/kg	21390				--	10200	J	7130	10600	10100
Chromium	mg/kg	277.8				--	23.6	92.6	94.8	86.5	31.5
Cobalt	mg/kg	21.9	23	469.2857143	70	--	12.6	7.3	3.2	J	3
Copper	mg/kg	142.8	3100	312.8571429	9400	--	28.1	47.6	J	95.1	85
Iron	mg/kg	57600	55000		160000	--	23600	J	19200	25600	19400
Lead	mg/kg	633	400	400	400	--	78.4	211	429	376	135
Magnesium	mg/kg	11520				--	5540	J	3840	2650	2610
Manganese	mg/kg	1524	1800			--	340	J	508	J	595
Mercury	mg/kg	0.81	10		30	--	0.17	0.27	0.54	0.55	0.28
Nickel	mg/kg	85.2	1500	156.4285714	4600	--	33.4	28.4	22.9	J	22.2
Potassium	mg/kg	3660				--	2910	1220	1120	1320	1630
Selenium	mg/kg	6.9	390	39.10714286	1200	--	1.3	J	2.3	J	2.6
Silver	mg/kg	2.04	390	39.10714286	1200	--	0.2	J	0.68	J	2.2
Sodium	mg/kg	957				--	318	J	319	J	198
Vanadium	mg/kg	69.6			54.75	--	37	23.2	18.8	19.6	20.3
Zinc	mg/kg	978	23000	2346.428571	70000	--	153	J	326	J-	750
<b>Organic</b>											
2-Butanone	mg/kg	0.039	28000	590.9671771	84000	--	0.014	U	0.013	0.034	0.05
2-Methylnaphthalene	mg/kg	0.66	230	22.15593188	690	--	0.23	U	0.22	U	0.26
4,4'-DDT	mg/kg	0.0129	1.7	1.712656495	110	--	0.0044	U	0.0043	U	0.005
Acenaphthylene	mg/kg	0.66		346.6387731		--	0.23	U	0.22	U	0.058
Acetone	mg/kg	0.0234	61000	174.2704067	180000	--	0.014	U	0.0078	J	0.021
Acetophenone	mg/kg	0.66	7800		23000	--	0.23	U	0.22	U	0.26
Anthracene	mg/kg	0.66	17000	2188.505596	52000	--	0.082	J	0.22	U	0.063
Aroclor-1260	mg/kg	0.066	0.22		22	--	0.044	U	0.022	J	0.037
Benzo(a)anthracene	mg/kg	0.237	0.15	0.620205398	15	--	0.15	J	0.079	J	0.098
Benzo(a)pyrene	mg/kg	0.24	0.015	0.33	1.5	--	0.1	J	0.08	J	0.12
Benzo(b)fluoranthene	mg/kg	0.3	0.15	0.620217342	15	--	0.19	J	0.1	J	0.24
Benzo(g,h,i)perylene	mg/kg	0.186				--	0.095	J	0.062	J	0.13
Benzo(k)fluoranthene	mg/kg	0.27	1.5	6.21235289	150	--	0.14	J	0.09	J	0.094
Bis(2-ethylhexyl)phthalate	mg/kg	0.66	35	34.51630075	3500	--	0.096	J	0.22	J	0.1
Carbazole	mg/kg	0.66				--	0.049	J	0.22	J	0.26
Chrysene	mg/kg	0.3	15	61.90114483	1500	--	0.16	J	0.1	J	0.14
											0.2
											0.063
											J



**Table 1A-Residential  
Soil Sample Analytical Results Summary at 12 inches  
Delta Shipyards  
Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-20-12-515 08/08/2012 Field Sample	DSE-21-12-515 08/09/2012 Field Sample	DSW-01-01-513 08/10/2012 Field Sample	DSW-01-01-523 08/10/2012 Field Duplicate	DSW-02-01-513 08/10/2012 Field Sample	
Dibenzo(a,h)anthracene	mg/kg	0.66	0.015	0.33	1.5	--	0.23	U	0.22	U	0.26	U
Di-n-butylphthalate	mg/kg	0.153	6100		18000	--	<b>0.074</b>	<b>U</b>	<b>0.051</b>	<b>U</b>	0.26	U
Endrin ketone	mg/kg	0.0129				--	0.0044	U	0.0043	U	0.005	UJv
Fluoranthene	mg/kg	0.66	2300	224.4277443	6900	--	<b>0.29</b>		<b>0.22</b>	<b>U</b>	<b>0.13</b>	<b>U</b>
gamma-Chlordane	mg/kg	0.0066				--	0.0023	U	0.0022	U	0.0026	UJv
Heptachlor	mg/kg	0.0066	0.11	0.016349678	11	--	0.0023	U	0.0022	U	<b>0.0013</b>	LJv
Indeno(1,2,3-cd)pyrene	mg/kg	0.153	0.15	0.621491921	15	--	<b>0.083</b>	<b>U</b>	<b>0.051</b>	<b>U</b>	<b>0.099</b>	<b>U</b>
Methyl acetate	mg/kg	0.0174	78000		230000	--	0.0068	U	0.0058	U	0.008	U
Methylene chloride	mg/kg	0.0174	56	18.69721484	1100	--	0.0068	U	0.0058	U	<b>0.0048</b>	U
Naphthalene	mg/kg	0.66	3.6	6.19574424	360	--	0.23	U	0.22	U	0.26	U
Phenanthrene	mg/kg	0.39		2108.62766		--	<b>0.31</b>		<b>0.13</b>	<b>U</b>	<b>0.053</b>	<b>U</b>
Phenol	mg/kg	0.66	18000	1287.794675	55000	--	0.23	U	0.22	U	0.26	U
Pyrene	mg/kg	0.42	1700	229.1608461	5200	--	<b>0.26</b>		<b>0.14</b>	<b>U</b>	<b>0.16</b>	<b>U</b>

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1B-Industrial**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMILs Industrial Soil	Sample ID Date Sample Type	DSE-04-24-515 08/06/2012 Field Sample	DSE-05-24-515 08/08/2012 Field Sample	DSE-06-24-515 08/07/2012 Field Sample	DSE-07-24-515 08/06/2012 Field Sample	DSE-08-24-515 08/07/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	33000	990000		3000000	--	15800	5960	12600	15900	13400	
Antimony	mg/kg	2.1	410	81.76	1200	--	2.3	U-	11.6	J-	2.9	U-
Arsenic	mg/kg	16.8	1.6	11.5	160	--	27.6	23.6	16.4	J	54.7	19.3
Barium	mg/kg	3420	190000	14308	570000	--	4360	8740	10100	J	4520	8980
Beryllium	mg/kg	3.9	2000	408.8	6000	--	1	0.6	0.68		0.89	0.8
Cadmium	mg/kg	0.93	800	100.8685353	2400	--	0.59	5.1	J+	1.6	0.3	U
Calcium	mg/kg	24900				--	9080	25400	21600	J	7090	5660
Chromium	mg/kg	48.9				--	20.9	584	35		20.8	29.7
Cobalt	mg/kg	22.5	300	12264	910	--	13.8	4	U	8.9	11.8	15.9
Copper	mg/kg	90	41000	8176	120000	--	25.9	81.9		159	25.9	32.6
Iron	mg/kg	49200	720000		2100000	--	26000	19200	22600	J	20500	21000
Lead	mg/kg	106.8	800	1400	800	--	74.5	J	761	258	83	J
Magnesium	mg/kg	12570				--	5240	3210	4490	J	5600	4320
Manganese	mg/kg	405	23000			--	367	569	446	J	309	341
Mercury	mg/kg	0.258	43		130	--	0.068	U	2	0.19	0.32	0.12
Nickel	mg/kg	94.5	20000	4088	59000	--	31.1		20.8	J	28.7	30.7
Potassium	mg/kg	4110				--	2330	1300	2000		2530	1980
Selenium	mg/kg	7.5	5100	1022	15000	--	1.9	U	2.1	U	1.4	U
Silver	mg/kg	3.3	5100	1022	15000	--	0.34	U	3.8		0.93	U
Sodium	mg/kg	2118				--	917	472	951		996	690
Thallium	mg/kg	8.4	10	14.308	31	--	2.5	U	0.35	U	2.3	U
Vanadium	mg/kg	88.8		1430.8		--	37.9		17		29	37.2
Zinc	mg/kg	243.6	310000	61320	920000	--	137	J	875	405	J	99.4
<b>Organic</b>												
1,4-Dioxane	mg/kg	0.48	17		1700	--	0.12	U	10	U	0.11	U
2-Butanone	mg/kg	0.0201	200000	4351.295519	590000	--	0.012	U	1	U	0.011	U
2-Methylnaphthalene	mg/kg	0.81	2200	165.2673834	6600	--	0.23	U	6.2		0.21	U
4,4'-DDE	mg/kg	0.0153	5.1	11.41998133	510	--	0.0026	U	0.0047	U	0.0041	U
4,4'-DDT	mg/kg	0.0153	7	11.86672004	700	--	0.0045	U	0.0047	U	0.004	U
Acenaphthene	mg/kg	0.81	33000	6124.439919	99000	--	0.23	U	1.2	U	0.21	U
Acenaphthylene	mg/kg	0.81		5140.530475		--	0.23	U	1.2	U	0.088	U
Acetone	mg/kg	0.048	630000	1394.143988	1900000	--	0.012	U	1	U	0.011	U
Acetophenone	mg/kg	0.81	100000		310000	--	0.16	U	1	U	0.091	U
Aldrin	mg/kg	0.0078	0.1	0.133892627	10	--	0.0023	U	0.0024	U	0.0021	U
Anthracene	mg/kg	0.81	170000	47808.42095	500000	--	0.23	U	0.87	U	0.15	U
Aroclor-1254	mg/kg	0.156	0.74		32	--	0.045	U	0.046	U	0.041	U
Aroclor-1260	mg/kg	0.156	0.74		74	--	0.045	U	0.046	U	0.059	U
Benzo(a)anthracene	mg/kg	0.81	2.1	2.868199367	210	--	0.23	U	1.2	U	0.19	U
Benzo(a)pyrene	mg/kg	0.81	0.21	0.33	21	--	0.23	U	1.2	U	0.26	U



**Table 1B-Industrial  
Soil Sample Analytical Results Summary at 24 inches  
Delta Shipyards  
Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-24-515 08/06/2012 Field Sample	DSE-05-24-515 08/08/2012 Field Sample	DSE-06-24-515 08/07/2012 Field Sample	DSE-07-24-515 08/06/2012 Field Sample	DSE-08-24-515 08/07/2012 Field Sample	
Benzo(b)fluoranthene	mg/kg	0.81	2.1	2.868329304	210	--	0.23	U	1.2	U	0.26	
Benzo(g,h,i)perylene	mg/kg	0.81				--	0.23	U	1.2	U	0.32	
Benzo(k)fluoranthene	mg/kg	0.81	21	28.79427687	2100	--	0.23	U	1.2	U	0.2	U
beta-BHC	mg/kg	0.0078	0.96	1.622748383	96	--	0.0023	U	0.0024	U	0.0013	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.81	120	173.0325248	12000	--	0.23	U	1.2	U	0.12	U
Butylbenzylphthalate	mg/kg	0.81	910	222.2735416	91000	--	0.23	U	1.2	U	0.21	U
Carbazole	mg/kg	0.81				--	0.23	U	1.2	U	0.051	U
Chrysene	mg/kg	0.81	210	285.5245365	21000	--	0.23	U	1.2	U	0.23	
Dibenzo(a,h)anthracene	mg/kg	0.81	0.21	0.33	21	--	0.23	U	1.2	U	0.069	U
Di-n-butylphthalate	mg/kg	0.216	62000		180000	--	0.33		1.2	U	0.21	U
Ethylbenzene	mg/kg	0.0243	27	232.5016836	2700	--	0.006	U	0.4	U	0.0056	U
Fluoranthene	mg/kg	0.81	22000	2885.39429	66000	--	0.069	U	1.2	U	0.37	
Fluorene	mg/kg	0.81	22000	5407.219769	66000	--	0.23	U	1.5		0.21	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	2.1	2.882233474	210	--	0.23	U	1.2	U	0.25	
Isopropylbenzene	mg/kg	0.0243	11000		32000	--	0.006	U	0.5	U	0.0056	U
m,p-Xylene	mg/kg	0.0243				--	0.006	U	1.6		0.0056	U
Methylcyclohexane	mg/kg	0.0243				--	0.006	U	0.54		0.0056	U
Methylene chloride	mg/kg	0.0243	960	44.33290307	9200	--	0.006	U	0.5	U	0.0056	U
Naphthalene	mg/kg	0.81	18	42.59771533	1800	--	0.23	U	2		0.21	U
o-Xylene	mg/kg	0.0243	3000		9000	--	0.006	U	1		0.0056	U
Phenanthrene	mg/kg	0.81		42533.41269		--	0.05	U	0.31	U	0.28	
Pyrene	mg/kg	0.81	17000	5606.69618	50000	--	0.052	U	0.36	U	0.38	
Toluene	mg/kg	0.0243	45000	466.2808173	140000	--	0.006	U	0.34	U	0.0056	U



**Table 1B-Industrial**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-24-515 08/06/2012 Field Sample	DSE-11-24-515 08/09/2012 Field Sample	DSE-13-24-515 08/07/2012 Field Sample	DSE-14-24-515 08/09/2012 Field Sample	DSE-16-24-515 08/07/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	33000	990000		3000000	--	4130		8340		18300	
Antimony	mg/kg	2.1	410	81.76	1200	--	18	J-	2.3	LJ-	3.3	LJ-
Arsenic	mg/kg	16.8	1.6	11.5	160	--	62.5		17.5		27.7	
Barium	mg/kg	3420	190000	14308	570000	--	3570		5700	J-	10300	
Beryllium	mg/kg	3.9	2000	408.8	6000	--	0.46	U	0.99		1.1	
Cadmium	mg/kg	0.93	800	100.8685353	2400	--	18.3		0.59		0.81	
Calcium	mg/kg	24900				--	10600		6810		10200	
Chromium	mg/kg	48.9				--	52.6		20.4		35.8	
Cobalt	mg/kg	22.5	300	12264	910	--	7		10.6		13.2	
Copper	mg/kg	90	41000	8176	120000	--	109		24.8	J	30.6	
Iron	mg/kg	49200	720000		2100000	--	32200		52200		25700	
Lead	mg/kg	106.8	800	1400	800	--	2170	J	85		96	J
Magnesium	mg/kg	12570				--	2150		3400		5910	
Manganese	mg/kg	405	23000			--	671		1910	J	531	
Mercury	mg/kg	0.258	43		130	--	1.8		0.08	U	0.18	
Nickel	mg/kg	94.5	20000	4088	59000	--	18.7		30.3		36.4	
Potassium	mg/kg	4110				--	641		1260		2740	
Selenium	mg/kg	7.5	5100	1022	15000	--	2.5	LJ	4		1.8	LJ
Silver	mg/kg	3.3	5100	1022	15000	--	8.9		0.26	LJ	0.47	LJ
Sodium	mg/kg	2118				--	332	LJ	545		580	
Thallium	mg/kg	8.4	10	14.308	31	--	2	LJ	1.4	LJ	2.6	U
Vanadium	mg/kg	88.8		1430.8		--	17.9		25.2		42	
Zinc	mg/kg	243.6	310000	61320	920000	--	2810	J	214	J-	174	J
<b>Organic</b>												
1,4-Dioxane	mg/kg	0.48	17		1700	--	0.11	U	0.16	U	0.13	U
2-Butanone	mg/kg	0.0201	200000	4351.295519	590000	--	0.021		0.016	U	0.035	
2-Methylnaphthalene	mg/kg	0.81	2200	165.2673834	6600	--	0.89	LJ	0.25	U	0.24	U
4,4'-DDE	mg/kg	0.0153	5.1	11.41998133	510	--	0.004	U	0.0049	U	0.0047	U
4,4'-DDT	mg/kg	0.0153	7	11.86672004	700	--	0.004	U	0.0049	U	0.0047	U
Acenaphthene	mg/kg	0.81	33000	6124.439919	99000	--	2.5		0.25	U	0.24	U
Acenaphthylene	mg/kg	0.81		5140.530475		--	1	U	0.25	U	0.24	U
Acetone	mg/kg	0.048	630000	1394.143988	1900000	--	0.1		0.016	U	0.014	
Acetophenone	mg/kg	0.81	100000		310000	--	1	U	0.25	U	0.24	U
Aldrin	mg/kg	0.0078	0.1	0.133892627	10	--	0.0021		0.0025	U	0.0024	U
Anthracene	mg/kg	0.81	170000	47808.42095	500000	--	0.35	LJ	0.25	U	0.24	U
Aroclor-1254	mg/kg	0.156	0.74		32	--	0.04	UJv	0.048	U	0.047	U
Aroclor-1260	mg/kg	0.156	0.74		74	--	0.04	UJv	0.048	U	0.047	U
Benzo(a)anthracene	mg/kg	0.81	2.1	2.868199367	210	--	1	U	0.25	U	0.24	U
Benzo(a)pyrene	mg/kg	0.81	0.21	0.33	21	--	1	U	0.25	U	0.24	U



**Table 1B-Industrial**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-24-515 08/06/2012 Field Sample	DSE-11-24-515 08/09/2012 Field Sample	DSE-13-24-515 08/07/2012 Field Sample	DSE-14-24-515 08/09/2012 Field Sample	DSE-16-24-515 08/07/2012 Field Sample	
Benzo(b)fluoranthene	mg/kg	0.81	2.1	2.868329304	210	--	1	U	0.25	U	0.24	U
Benzo(g,h,i)perylene	mg/kg	0.81				--	1	U	0.25	U	0.24	U
Benzo(k)fluoranthene	mg/kg	0.81	21	28.79427687	2100	--	1	U	0.25	U	0.24	U
beta-BHC	mg/kg	0.0078	0.96	1.622748383	96	--	0.0021	U	0.0025	U	0.0024	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.81	120	173.0325248	12000	--	1	U	0.25	U	0.24	U
Butylbenzylphthalate	mg/kg	0.81	910	222.2735416	91000	--	1	U	0.25	U	0.24	U
Carbazole	mg/kg	0.81				--	1	U	0.25	U	0.24	U
Chrysene	mg/kg	0.81	210	285.5245365	21000	--	1	U	0.25	U	0.24	U
Dibenzo(a,h)anthracene	mg/kg	0.81	0.21	0.33	21	--	1	U	0.25	U	0.24	U
Di-n-butylphthalate	mg/kg	0.216	62000		180000	--	1	U	<b>0.06</b>	U	0.24	U
Ethylbenzene	mg/kg	0.0243	27	232.5016836	2700	--	0.0057	U	0.0079	U	0.0067	U
Fluoranthene	mg/kg	0.81	22000	2885.39429	66000	--	1	U	0.25	U	0.24	U
Fluorene	mg/kg	0.81	22000	5407.219769	66000	--	<b>1.6</b>		0.25	U	0.24	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	2.1	2.882233474	210	--	1	U	0.25	U	0.24	U
Isopropylbenzene	mg/kg	0.0243	11000		32000	--	<b>0.0072</b>		0.0079	U	0.0067	U
m,p-Xylene	mg/kg	0.0243				--	0.0057	U	0.0079	U	0.0067	U
Methylcyclohexane	mg/kg	0.0243				--	<b>0.0091</b>	J^	0.0079	U	0.0067	U
Methylene chloride	mg/kg	0.0243	960	44.33290307	9200	--	0.0057	U	0.0079	U	<b>0.0028</b>	U
Naphthalene	mg/kg	0.81	18	42.59771533	1800	--	1	U	0.25	U	0.24	U
o-Xylene	mg/kg	0.0243	3000		9000	--	0.0057	U	0.0079	U	0.0067	U
Phenanthrene	mg/kg	0.81		42533.41269		--	<b>3.5</b>		0.25	U	0.24	U
Pyrene	mg/kg	0.81	17000	5606.69618	50000	--	<b>0.21</b>	U	0.25	U	0.24	U
Toluene	mg/kg	0.0243	45000	466.2808173	140000	--	0.0057	U	0.0079	U	0.0067	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1B-Industrial**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-20-24-515 08/08/2012 Field Sample	DSE-21-24-515 08/09/2012 Field Sample
<b>Metals</b>								
Aluminum	mg/kg	33000	990000		3000000	--	18100	11000
Antimony	mg/kg	2.1	410	81.76	1200	--	1.7	LJ- 0.7
Arsenic	mg/kg	16.8	1.6	11.5	160	--	10.3	J 5.6
Barium	mg/kg	3420	190000	14308	570000	--	3830	J 1140
Beryllium	mg/kg	3.9	2000	408.8	6000	--	1.6	1.3
Cadmium	mg/kg	0.93	800	100.8685353	2400	--	0.43	LJ 0.31
Calcium	mg/kg	24900				--	5060	J 8300
Chromium	mg/kg	48.9				--	21.7	16.3
Cobalt	mg/kg	22.5	300	12264	910	--	14.7	7.5
Copper	mg/kg	90	41000	8176	120000	--	23.2	30
Iron	mg/kg	49200	720000		2100000	--	27200	J 16400
Lead	mg/kg	106.8	800	1400	800	--	54.3	35.6
Magnesium	mg/kg	12570				--	6030	J 4190
Manganese	mg/kg	405	23000			--	367	J 135
Mercury	mg/kg	0.258	43		130	--	0.13	0.086
Nickel	mg/kg	94.5	20000	4088	59000	--	38	31.5
Potassium	mg/kg	4110				--	2700	1370
Selenium	mg/kg	7.5	5100	1022	15000	--	2.1	LJ 2.5
Silver	mg/kg	3.3	5100	1022	15000	--	0.18	LJ 1.1
Sodium	mg/kg	2118				--	437	LJ 706
Thallium	mg/kg	8.4	10	14.308	31	--	2.5	U 2.8
Vanadium	mg/kg	88.8		1430.8		--	41.4	29.6
Zinc	mg/kg	243.6	310000	61320	920000	--	113	J 81.2
<b>Organic</b>								
1,4-Dioxane	mg/kg	0.48	17		1700	--	0.14	U 0.16
2-Butanone	mg/kg	0.0201	200000	4351.295519	590000	--	0.014	U 0.0067
2-Methylnaphthalene	mg/kg	0.81	2200	165.2673834	6600	--	0.25	U 0.27
4,4'-DDE	mg/kg	0.0153	5.1	11.41998133	510	--	0.0048	U 0.0051
4,4'-DDT	mg/kg	0.0153	7	11.86672004	700	--	0.0048	U 0.0051
Acenaphthene	mg/kg	0.81	33000	6124.439919	99000	--	0.25	U 0.27
Acenaphthylene	mg/kg	0.81		5140.530475		--	0.25	U 0.27
Acetone	mg/kg	0.048	630000	1394.143988	1900000	--	0.014	U 0.016
Acetophenone	mg/kg	0.81	100000		310000	--	0.25	U 0.27
Aldrin	mg/kg	0.0078	0.1	0.133892627	10	--	0.0025	U 0.0026
Anthracene	mg/kg	0.81	170000	47808.42095	500000	--	0.25	U 0.27
Aroclor-1254	mg/kg	0.156	0.74		32	--	0.048	U 0.052
Aroclor-1260	mg/kg	0.156	0.74		74	--	0.048	U 0.052
Benzo(a)anthracene	mg/kg	0.81	2.1	2.868199367	210	--	0.25	U 0.27
Benzo(a)pyrene	mg/kg	0.81	0.21	0.33	21	--	0.25	U 0.27



**Table 1B-Industrial  
Soil Sample Analytical Results Summary at 24 inches  
Delta Shipyards  
Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-20-24-515 08/08/2012 Field Sample	DSE-21-24-515 08/09/2012 Field Sample
Benzo(b)fluoranthene	mg/kg	0.81	2.1	2.868329304	210	--	0.25	U 0.27 U
Benzo(g,h,i)perylene	mg/kg	0.81				--	0.25	U 0.27 U
Benzo(k)fluoranthene	mg/kg	0.81	21	28.79427687	2100	--	0.25	U 0.27 U
beta-BHC	mg/kg	0.0078	0.96	1.622748383	96	--	0.0025	U 0.0026 U
Bis(2-ethylhexyl)phthalate	mg/kg	0.81	120	173.0325248	12000	--	<b>0.073</b>	LJ 0.27 U
Butylbenzylphthalate	mg/kg	0.81	910	222.2735416	91000	--	0.25	U 0.27 U
Carbazole	mg/kg	0.81				--	0.25	UJv 0.27 U
Chrysene	mg/kg	0.81	210	285.5245365	21000	--	0.25	U 0.27 U
Dibenzo(a,h)anthracene	mg/kg	0.81	0.21	0.33	21	--	0.25	U 0.27 U
Di-n-butylphthalate	mg/kg	0.216	62000		180000	--	<b>0.066</b>	LJ 0.072 LJ
Ethylbenzene	mg/kg	0.0243	27	232.5016836	2700	--	0.007	U 0.0081 U
Fluoranthene	mg/kg	0.81	22000	2885.39429	66000	--	0.25	U 0.27 U
Fluorene	mg/kg	0.81	22000	5407.219769	66000	--	0.25	UJv 0.27 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	2.1	2.882233474	210	--	0.25	U 0.27 U
Isopropylbenzene	mg/kg	0.0243	11000		32000	--	0.007	U 0.0081 U
m,p-Xylene	mg/kg	0.0243				--	0.007	U 0.0081 U
Methylcyclohexane	mg/kg	0.0243				--	0.007	U 0.0081 U
Methylene chloride	mg/kg	0.0243	960	44.33290307	9200	--	0.007	U 0.0081 U
Naphthalene	mg/kg	0.81	18	42.59771533	1800	--	0.25	U 0.27 U
o-Xylene	mg/kg	0.0243	3000		9000	--	0.007	U 0.0081 U
Phenanthrene	mg/kg	0.81		42533.41269		--	0.25	U 0.27 U
Pyrene	mg/kg	0.81	17000	5606.69618	50000	--	0.25	U 0.27 U
Toluene	mg/kg	0.0243	45000	466.2808173	140000	--	0.007	U 0.0081 U
		- Concentration 3x above background						
		- Concentration above EPA RSL and 3x background						
		- Concentration above RECAP and 3x background						
		- Concentration above EPA RSLs, RECAP, and 3x background						
		- Concentration above EPA RMLs and 3x background						
		- Concentration above EPA RMLs, RECAP, and 3x background						
		- Concentration above EPA RMLs, RSLs, and 3x background						
		- Concentration above EPA RMLs, RSLs, RECAP, and 3x background						



**Table 1B-Residential**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-24-515 08/06/2012 Field Sample	DSE-05-24-515 08/08/2012 Field Sample	DSE-06-24-515 08/07/2012 Field Sample	DSE-07-24-515 08/06/2012 Field Sample	DSE-08-24-515 08/07/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	33000	77000		230000	--	15800	5960	12600	15900	13400	
Antimony	mg/kg	2.1	31	3.128571429	94	--	2.3	LJ-	11.6	J-	3.3	LJ-
Arsenic	mg/kg	16.8	0.39	11.5	39	--	27.6		23.6		16.4	J
Barium	mg/kg	3420	15000	547.5	46000	--	4360		8740		10100	J
Beryllium	mg/kg	3.9	160	15.64285714	470	--	1		0.6		0.68	
Cadmium	mg/kg	0.93	70	3.89979486	210	--	0.59		5.1	J+	1.6	
Calcium	mg/kg	24900				--	9080		25400		21600	J
Chromium	mg/kg	48.9				--	20.9		584		35	
Cobalt	mg/kg	22.5	23	469.2857143	70	--	13.8		4	U	8.9	
Copper	mg/kg	90	3100	312.8571429	9400	--	25.9		81.9		159	
Iron	mg/kg	49200	55000		160000	--	26000		19200		22600	J
Lead	mg/kg	106.8	400	400	400	--	74.5	J	761		258	
Magnesium	mg/kg	12570				--	5240		3210		4490	J
Manganese	mg/kg	405	1800			--	367		569		446	J
Mercury	mg/kg	0.258	10		30	--	0.068	U	2		0.19	
Nickel	mg/kg	94.5	1500	156.4285714	4600	--	31.1		20.8	J	28.7	
Potassium	mg/kg	4110				--	2330		1300		2000	
Selenium	mg/kg	7.5	390	39.10714286	1200	--	1.9	U	2.1	U	1.4	U
Silver	mg/kg	3.3	390	39.10714286	1200	--	0.34	U	3.8		0.93	
Sodium	mg/kg	2118				--	917		472	U	951	
Thallium	mg/kg	8.4	0.78	0.5475	2.3	--	2.5	U	0.35	U	2.3	U
Vanadium	mg/kg	88.8		54.75		--	37.9		17		29	
Zinc	mg/kg	243.6	23000	2346.428571	70000	--	137	J	875		405	J
<b>Organic</b>												
1,4-Dioxane	mg/kg	0.48	4.9		490	--	0.12	U	10	U	0.11	U
2-Butanone	mg/kg	0.0201	28000	590.9671771	84000	--	0.012	U	1	U	0.011	U
2-Methylnaphthalene	mg/kg	0.81	230	22.15593188	690	--	0.23	U	6.2		0.21	U
4,4'-DDE	mg/kg	0.0153	1.4	1.693854481	140	--	0.0026	U	0.0047	U	0.0041	U
4,4'-DDT	mg/kg	0.0153	1.7	1.712656495	110	--	0.0045	U	0.0047	U	0.004	U
Acenaphthene	mg/kg	0.81	3400	373.6479476	10000	--	0.23	U	1.2	U	0.21	U
Acenaphthylene	mg/kg	0.81		346.6387731		--	0.23	U	1.2	U	0.088	U
Acetone	mg/kg	0.048	61000	174.2704067	180000	--	0.012	U	1	U	0.011	U
Acetophenone	mg/kg	0.81	7800		23000	--	0.16	U	1	U	0.091	U
Aldrin	mg/kg	0.0078	0.029	0.027726359	2.9	--	0.0023	U	0.0024	U	0.0021	U
Anthracene	mg/kg	0.81	17000	2188.505596	52000	--	0.23	U	0.87	U	0.15	U
Aroclor-1254	mg/kg	0.156	0.22		3.4	--	0.045	U	0.046	U	0.041	U
Aroclor-1260	mg/kg	0.156	0.22		22	--	0.045	U	0.046	U	0.059	
Benzo(a)anthracene	mg/kg	0.81	0.15	0.620205398	15	--	0.23	U	1.2	U	0.19	U
Benzo(a)pyrene	mg/kg	0.81	0.015	0.33	1.5	--	0.23	U	1.2	U	0.26	
											0.24	U
											0.22	U
											0.22	UJv



**Table 1B-Residential**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-24-515 08/06/2012 Field Sample	DSE-05-24-515 08/08/2012 Field Sample	DSE-06-24-515 08/07/2012 Field Sample	DSE-07-24-515 08/06/2012 Field Sample	DSE-08-24-515 08/07/2012 Field Sample	
Benzo(b)fluoranthene	mg/kg	0.81	0.15	0.620217342	15	--	0.23	U	1.2	U	0.26	
Benzo(g,h,i)perylene	mg/kg	0.81			--	--	0.23	U	1.2	U	0.32	
Benzo(k)fluoranthene	mg/kg	0.81	1.5	6.21235289	150	--	0.23	U	1.2	U	0.2	U
beta-BHC	mg/kg	0.0078	0.27	0.291310659	27	--	0.0023	U	0.0024	U	0.0013	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.81	35	34.51630075	3500	--	0.23	U	1.2	U	0.12	U
Butylbenzylphthalate	mg/kg	0.81	260	222.2735416	26000	--	0.23	U	1.2	U	0.21	U
Carbazole	mg/kg	0.81			--	--	0.23	U	1.2	U	0.051	U
Chrysene	mg/kg	0.81	15	61.90114483	1500	--	0.23	U	1.2	U	0.23	
Dibenzo(a,h)anthracene	mg/kg	0.81	0.015	0.33	1.5	--	0.23	U	1.2	U	0.069	U
Di-n-butylphthalate	mg/kg	0.216	6100		18000	--	0.33		1.2	U	0.11	U
Ethylbenzene	mg/kg	0.0243	5.4	163.6661254	540	--	0.006	U	0.4	U	0.0056	U
Fluoranthene	mg/kg	0.81	2300	224.4277443	6900	--	0.069	U	1.2	U	0.37	
Fluorene	mg/kg	0.81	2300	276.6833948	6900	--	0.23	U	1.5		0.21	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	0.15	0.621491921	15	--	0.23	U	1.2	U	0.25	
Isopropylbenzene	mg/kg	0.0243	2100		6200	--	0.006	U	0.5	U	0.0056	U
m,p-Xylene	mg/kg	0.0243			--	--	0.006	U	1.6		0.0056	U
Methylcyclohexane	mg/kg	0.0243			--	--	0.006	U	0.54		0.0056	U
Methylene chloride	mg/kg	0.0243	56	18.69721484	1100	--	0.006	U	0.5	U	0.0056	U
Naphthalene	mg/kg	0.81	3.6	6.19574424	360	--	0.23	U	2		0.21	U
o-Xylene	mg/kg	0.0243	690		2100	--	0.006	U	1		0.0056	U
Phenanthrene	mg/kg	0.81		2108.62766		--	0.05	U	0.31	U	0.28	
Pyrene	mg/kg	0.81	1700	229.1608461	5200	--	0.052	U	0.36	U	0.38	
Toluene	mg/kg	0.0243	5000	67.63078972	15000	--	0.006	U	0.34	U	0.0056	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1B-Residential**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-24-515 08/06/2012 Field Sample	DSE-11-24-515 08/09/2012 Field Sample	DSE-13-24-515 08/07/2012 Field Sample	DSE-14-24-515 08/09/2012 Field Sample	DSE-16-24-515 08/07/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	33000	77000		230000	--	4130	8340	18300	11600	14300	
Antimony	mg/kg	2.1	31	3.128571429	94	--	18	J-	2.3	J-	3.3	J-
Arsenic	mg/kg	16.8	0.39	11.5	39	--	62.5		17.5		27.7	
Barium	mg/kg	3420	15000	547.5	46000	--	3570	5700	J-	10300	720	J-
Beryllium	mg/kg	3.9	160	15.64285714	470	--	0.46	U	0.99		1.1	
Cadmium	mg/kg	0.93	70	3.89979486	210	--	18.3		0.59		0.81	
Calcium	mg/kg	24900				--	10600		6810		10200	
Chromium	mg/kg	48.9				--	52.6		20.4		35.8	
Cobalt	mg/kg	22.5	23	469.2857143	70	--	7		10.6		13.2	
Copper	mg/kg	90	3100	312.8571429	9400	--	109		24.8	J	30.6	
Iron	mg/kg	49200	55000		160000	--	32200		52200		25700	
Lead	mg/kg	106.8	400	400	400	--	2170	J	85		96	J
Magnesium	mg/kg	12570				--	2150		3400		5910	
Manganese	mg/kg	405	1800			--	671		1910	J	531	
Mercury	mg/kg	0.258	10		30	--	1.8		0.08	J	0.18	
Nickel	mg/kg	94.5	1500	156.4285714	4600	--	18.7		30.3		36.4	
Potassium	mg/kg	4110				--	641		1260		2740	
Selenium	mg/kg	7.5	390	39.10714286	1200	--	2.5	U	4		1.8	U
Silver	mg/kg	3.3	390	39.10714286	1200	--	8.9		0.26	J	0.47	J
Sodium	mg/kg	2118				--	332	U	545		580	
Thallium	mg/kg	8.4	0.78	0.5475	2.3	--	2	U	1.4	J	2.6	U
Vanadium	mg/kg	88.8			54.75	--	17.9		25.2		42	
Zinc	mg/kg	243.6	23000	2346.428571	70000	--	2810	J	214	J-	174	J
<b>Organic</b>												
1,4-Dioxane	mg/kg	0.48	4.9		490	--	0.11	U	0.16	U	0.13	U
2-Butanone	mg/kg	0.0201	28000	590.9671771	84000	--	0.021		0.016	U	0.035	
2-Methylnaphthalene	mg/kg	0.81	230	22.15593188	690	--	0.89	U	0.25	U	0.24	U
4,4'-DDE	mg/kg	0.0153	1.4	1.693854481	140	--	0.004	U	0.0049	U	0.0047	U
4,4'-DDT	mg/kg	0.0153	1.7	1.712656495	110	--	0.004	U	0.0049	U	0.0047	U
Acenaphthene	mg/kg	0.81	3400	373.6479476	10000	--	2.5		0.25	U	0.24	U
Acenaphthylene	mg/kg	0.81		346.6387731		--	1	U	0.25	U	0.24	U
Acetone	mg/kg	0.048	61000	174.2704067	180000	--	0.1		0.016	U	0.014	
Acetophenone	mg/kg	0.81	7800		23000	--	1	U	0.25	U	0.24	U
Aldrin	mg/kg	0.0078	0.029	0.027726359	2.9	--	0.0021		0.0025	U	0.0024	U
Anthracene	mg/kg	0.81	17000	2188.505596	52000	--	0.35	U	0.25	U	0.24	U
Aroclor-1254	mg/kg	0.156	0.22		3.4	--	0.04	UJv	0.048	U	0.047	U
Aroclor-1260	mg/kg	0.156	0.22		22	--	0.04	UJv	0.048	U	0.047	U
Benzo(a)anthracene	mg/kg	0.81	0.15	0.620205398	15	--	1	U	0.25	U	0.24	U
Benzo(a)pyrene	mg/kg	0.81	0.015	0.33	1.5	--	1	U	0.25	U	0.24	U



**Table 1B-Residential**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-24-515 08/06/2012 Field Sample	DSE-11-24-515 08/09/2012 Field Sample	DSE-13-24-515 08/07/2012 Field Sample	DSE-14-24-515 08/09/2012 Field Sample	DSE-16-24-515 08/07/2012 Field Sample	
Benzo(b)fluoranthene	mg/kg	0.81	0.15	0.620217342	15	--	1	U	0.25	U	0.24	U
Benzo(g,h,i)perylene	mg/kg	0.81			--	--	1	U	0.25	U	0.24	U
Benzo(k)fluoranthene	mg/kg	0.81	1.5	6.21235289	150	--	1	U	0.25	U	0.24	U
beta-BHC	mg/kg	0.0078	0.27	0.291310659	27	--	0.0021	U	0.0025	U	0.0024	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.81	35	34.51630075	3500	--	1	U	0.25	U	0.24	U
Butylbenzylphthalate	mg/kg	0.81	260	222.2735416	26000	--	1	U	0.25	U	0.24	U
Carbazole	mg/kg	0.81			--	--	1	U	0.25	U	0.24	U
Chrysene	mg/kg	0.81	15	61.90114483	1500	--	1	U	0.25	U	0.24	U
Dibenzo(a,h)anthracene	mg/kg	0.81	0.015	0.33	1.5	--	1	U	0.25	U	0.24	U
Di-n-butylphthalate	mg/kg	0.216	6100		18000	--	1	U	<b>0.06</b>	U	0.24	U
Ethylbenzene	mg/kg	0.0243	5.4	163.6661254	540	--	0.0057	U	0.0079	U	0.0067	U
Fluoranthene	mg/kg	0.81	2300	224.4277443	6900	--	1	U	0.25	U	0.24	U
Fluorene	mg/kg	0.81	2300	276.6833948	6900	--	<b>1.6</b>		0.25	U	0.24	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	0.15	0.621491921	15	--	1	U	0.25	U	0.24	U
Isopropylbenzene	mg/kg	0.0243	2100		6200	--	<b>0.0072</b>		0.0079	U	0.0067	U
m,p-Xylene	mg/kg	0.0243			--	--	0.0057	U	0.0079	U	0.0067	U
Methylcyclohexane	mg/kg	0.0243			--	--	<b>0.0091</b>	J^	0.0079	U	0.0067	U
Methylene chloride	mg/kg	0.0243	56	18.69721484	1100	--	0.0057	U	0.0079	U	<b>0.0028</b>	U
Naphthalene	mg/kg	0.81	3.6	6.19574424	360	--	1	U	0.25	U	0.24	U
o-Xylene	mg/kg	0.0243	690		2100	--	0.0057	U	0.0079	U	0.0067	U
Phenanthrene	mg/kg	0.81		2108.62766		--	<b>3.5</b>		0.25	U	0.24	U
Pyrene	mg/kg	0.81	1700	229.1608461	5200	--	<b>0.21</b>	U	0.25	U	0.24	U
Toluene	mg/kg	0.0243	5000	67.63078972	15000	--	0.0057	U	0.0079	U	0.0067	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1B-Residential**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-20-24-515 08/08/2012 Field Sample	DSE-21-24-515 08/09/2012 Field Sample
<b>Metals</b>								
Aluminum	mg/kg	33000	77000		230000	--	18100	
Antimony	mg/kg	2.1	31	3.128571429	94	--	1.7	U-
Arsenic	mg/kg	16.8	0.39	11.5	39	--	10.3	J
Barium	mg/kg	3420	15000	547.5	46000	--	3830	J
Beryllium	mg/kg	3.9	160	15.64285714	470	--	1.6	
Cadmium	mg/kg	0.93	70	3.89979486	210	--	0.43	U
Calcium	mg/kg	24900				--	5060	J
Chromium	mg/kg	48.9				--	21.7	
Cobalt	mg/kg	22.5	23	469.2857143	70	--	14.7	
Copper	mg/kg	90	3100	312.8571429	9400	--	23.2	
Iron	mg/kg	49200	55000		160000	--	27200	J
Lead	mg/kg	106.8	400	400	400	--	54.3	
Magnesium	mg/kg	12570				--	6030	J
Manganese	mg/kg	405	1800			--	367	J
Mercury	mg/kg	0.258	10		30	--	0.13	
Nickel	mg/kg	94.5	1500	156.4285714	4600	--	38	
Potassium	mg/kg	4110				--	2700	
Selenium	mg/kg	7.5	390	39.10714286	1200	--	2.1	U
Silver	mg/kg	3.3	390	39.10714286	1200	--	0.18	U
Sodium	mg/kg	2118				--	437	U
Thallium	mg/kg	8.4	0.78	0.5475	2.3	--	2.5	U
Vanadium	mg/kg	88.8		54.75		--	41.4	
Zinc	mg/kg	243.6	23000	2346.428571	70000	--	113	J
<b>Organic</b>								
1,4-Dioxane	mg/kg	0.48	4.9		490	--	0.14	U
2-Butanone	mg/kg	0.0201	28000	590.9671771	84000	--	0.014	U
2-Methylnaphthalene	mg/kg	0.81	230	22.15593188	690	--	0.25	U
4,4'-DDE	mg/kg	0.0153	1.4	1.693854481	140	--	0.0048	U
4,4'-DDT	mg/kg	0.0153	1.7	1.712656495	110	--	0.0048	U
Acenaphthene	mg/kg	0.81	3400	373.6479476	10000	--	0.25	U
Acenaphthylene	mg/kg	0.81		346.6387731		--	0.25	U
Acetone	mg/kg	0.048	61000	174.2704067	180000	--	0.014	U
Acetophenone	mg/kg	0.81	7800		23000	--	0.25	U
Aldrin	mg/kg	0.0078	0.029	0.027726359	2.9	--	0.0025	U
Anthracene	mg/kg	0.81	17000	2188.505596	52000	--	0.25	U
Aroclor-1254	mg/kg	0.156	0.22		3.4	--	0.048	U
Aroclor-1260	mg/kg	0.156	0.22		22	--	0.048	U
Benzo(a)anthracene	mg/kg	0.81	0.15	0.620205398	15	--	0.25	U
Benzo(a)pyrene	mg/kg	0.81	0.015	0.33	1.5	--	0.25	U



**Table 1B-Residential**  
**Soil Sample Analytical Results Summary at 24 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-20-24-515 08/08/2012 Field Sample	DSE-21-24-515 08/09/2012 Field Sample
Benzo(b)fluoranthene	mg/kg	0.81	0.15	0.620217342	15	--	0.25	U
Benzo(g,h,i)perylene	mg/kg	0.81			--	--	0.25	U
Benzo(k)fluoranthene	mg/kg	0.81	1.5	6.21235289	150	--	0.25	U
beta-BHC	mg/kg	0.0078	0.27	0.291310659	27	--	0.0025	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.81	35	34.51630075	3500	--	<b>0.073</b>	U
Butylbenzylphthalate	mg/kg	0.81	260	222.2735416	26000	--	0.25	U
Carbazole	mg/kg	0.81			--	--	0.25	UJv
Chrysene	mg/kg	0.81	15	61.90114483	1500	--	0.25	U
Dibenzo(a,h)anthracene	mg/kg	0.81	0.015	0.33	1.5	--	0.25	U
Di-n-butylphthalate	mg/kg	0.216	6100		18000	--	<b>0.066</b>	U
Ethylbenzene	mg/kg	0.0243	5.4	163.6661254	540	--	0.007	U
Fluoranthene	mg/kg	0.81	2300	224.4277443	6900	--	0.25	U
Fluorene	mg/kg	0.81	2300	276.6833948	6900	--	0.25	UJv
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	0.15	0.621491921	15	--	0.25	U
Isopropylbenzene	mg/kg	0.0243	2100		6200	--	0.007	U
m,p-Xylene	mg/kg	0.0243			--	--	0.007	U
Methylcyclohexane	mg/kg	0.0243			--	--	0.007	U
Methylene chloride	mg/kg	0.0243	56	18.69721484	1100	--	0.007	U
Naphthalene	mg/kg	0.81	3.6	6.19574424	360	--	0.25	U
o-Xylene	mg/kg	0.0243	690		2100	--	0.007	U
Phenanthrene	mg/kg	0.81		2108.62766		--	0.25	U
Pyrene	mg/kg	0.81	1700	229.1608461	5200	--	0.25	U
Toluene	mg/kg	0.0243	5000	67.63078972	15000	--	0.007	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1C-Industrial**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-48-515 08/06/2012 Field Sample	DSE-05-24-525 08/08/2012 Field Duplicate	DSE-05-48-515 08/08/2012 Field Sample	DSE-06-48-515 08/07/2012 Field Sample	DSE-07-48-515 08/06/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	28440	990000		3000000	--	18900	5090		4850		7920
Antimony	mg/kg	1.62	410	81.76	1200	--	2.1	J-	12.8	J-	12.4	4.2
Arsenic	mg/kg	15	1.6	11.5	160	--	26.4		37.4		35.6	20.9
Barium	mg/kg	801	190000	14308	570000	--	3300		7410		7140	8660
Beryllium	mg/kg	3.3	2000	408.8	6000	--	1.3		0.49	J	0.47	0.54
Cadmium	mg/kg	1.05	800	100.8685353	2400	--	0.15	J	8.5	J+	8.4	1.6
Calcium	mg/kg	23310				--	9290		22300		21100	88800
Chromium	mg/kg	41.1				--	20.8		337		330	39.9
Cobalt	mg/kg	28.8	300	12264	910	--	11.3		4.9	J	4.9	7.6
Copper	mg/kg	78	41000	8176	120000	--	24		97.6		95.6	76.8
Iron	mg/kg	39000	720000		2100000	--	24600		20200		19900	18400
Lead	mg/kg	78.3	800	1400	800	--	42.3	J	1030		989	231
Magnesium	mg/kg	14100				--	6510		3500		3350	3030
Manganese	mg/kg	519	23000			--	296		866		851	840
Mercury	mg/kg	0.186	43		130	--	0.054	J	0.12	U	1.8	0.29
Nickel	mg/kg	92.4	20000	4088	59000	--	29.9		20.4	J	19.6	22.3
Potassium	mg/kg	4680				--	3490		1150		1070	1440
Selenium	mg/kg	6.9	5100	1022	15000	--	2.1	J	2.4	J	2.4	0.66
Silver	mg/kg	2.52	5100	1022	15000	--	0.27	J	5.9		5.7	0.82
Sodium	mg/kg	2766				--	1170		2550		2420	1500
Thallium	mg/kg	6.3	10	14.308	31	--	3.3	U	1.1	J	1.1	2.3
Vanadium	mg/kg	84.6		1430.8		--	42.2		16.3		15.4	18.9
Zinc	mg/kg	226.5	310000	61320	920000	--	88.1	J	1300		1290	421
<b>Organic</b>												
1,1'-Biphenyl	mg/kg	0.99	210	231.7845284	640	--	0.27	U	20	J	5.6	5.8
2-Butanone	mg/kg	0.0288	200000	4351.295519	590000	--	0.015	U	0.91	U	6.9	0.012
2-Methylnaphthalene	mg/kg	0.99	2200	165.2673834	6600	--	0.27	U	400	J	290	24
4,4'-DDT	mg/kg	0.0192	7	11.86672004	700	--	0.0052	U	0.0047	UR	0.0047	0.0038
Acenaphthylene	mg/kg	0.99		5140.530475		--	0.27	U	6.6	J	5.6	5.8
Acetone	mg/kg	0.057	630000	1394.143988	1900000	--	0.015	U	0.91	U	6.9	0.084
Acetophenone	mg/kg	0.99	100000		310000	--	0.25	J	5.9	UJ	5.6	1.8
Anthracene	mg/kg	0.99	170000	47808.42095	500000	--	0.27	U	7.2	J	32	JN
Aroclor-1260	mg/kg	0.192	0.74		74	--	0.053	U	0.047	U	0.048	0.087
Benzene	mg/kg	0.0279	5.4	3.083911025	540	--	0.0073	U	0.45	U	1.8	0.0061
Benzo(a)anthracene	mg/kg	0.99	2.1	2.868199367	210	--	0.27	U	5.9	UJ	5.6	2.8
Benzo(a)pyrene	mg/kg	0.99	0.21	0.33	21	--	0.27	U	5.9	UJ	5.6	1.9
Benzo(b)fluoranthene	mg/kg	0.99	2.1	2.868329304	210	--	0.27	U	5.9	UJ	5.6	2
Benzo(g,h,i)perylene	mg/kg	0.99				--	0.27	U	5.9	UJ	5.6	1.2



**Table 1C-Industrial**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-48-515 08/06/2012 Field Sample	DSE-05-24-525 08/08/2012 Field Duplicate	DSE-05-48-515 08/08/2012 Field Sample	DSE-06-48-515 08/07/2012 Field Sample	DSE-07-48-515 08/06/2012 Field Sample	
Benzo(k)fluoranthene	mg/kg	0.99	21	28.79427687	2100	--	0.27	U	5.9	UJ	5.6	UJ
beta-BHC	mg/kg	0.0099	0.96	1.622748383	96	--	0.0027	U	0.0024	UR	0.0024	UR
Bis(2-ethylhexyl)phthalate	mg/kg	0.99	120	173.0325248	12000	--	0.27	U	5.9	UJ	5.6	UJ
Caprolactam	mg/kg	0.99	310000		920000	--	0.27	U	5.9	UJ	5.6	UJ
Chrysene	mg/kg	0.99	210	285.5245365	21000	--	0.27	U	5.9	UJ	5.6	UJ
Cyclohexane	mg/kg	0.0279	29000		88000	--	0.0073	U	<b>0.37</b>	LJv	<b>2</b>	LJ
Dibenzofuran	mg/kg	0.99	1000	151.6010855	3100	--	0.27	U	<b>18</b>	J	5.6	UJ
Di-n-butylphthalate	mg/kg	0.99	62000		180000	--	0.059	U	5.9	UJ	5.6	UJ
Ethylbenzene	mg/kg	0.0279	27	232.5016836	2700	--	0.0073	U	<b>1.8</b>		<b>12</b>	
Fluoranthene	mg/kg	0.99	22000	2885.39429	66000	--	0.27	U	5.9	UJ	5.6	UJ
Fluorene	mg/kg	0.99	22000	5407.219769	66000	--	0.27	U	<b>45</b>	J	<b>34</b>	J
gamma-Chlordane	mg/kg	0.0099			--	--	0.0027	U	<b>0.0018</b>	LJN	<b>0.0034</b>	JN
Indeno(1,2,3-cd)pyrene	mg/kg	0.99	2.1	2.882233474	210	--	0.27	U	5.9	UJ	5.6	UJ
Isopropylbenzene	mg/kg	0.0279	11000		32000	--	0.0073	U	<b>0.8</b>		<b>4.8</b>	
m,p-Xylene	mg/kg	0.0279			--	--	0.0073	U	<b>9.7</b>		<b>64</b>	
Methylcyclohexane	mg/kg	0.0279			--	--	0.0073	U	<b>2.1</b>	Jv	<b>10</b>	
Methylene chloride	mg/kg	0.0279	960	44.33290307	9200	--	0.0073	U	0.45	U	3.5	U
Naphthalene	mg/kg	0.99	18	42.59771533	1800	--	0.27	U	<b>130</b>	J	<b>100</b>	J
o-Xylene	mg/kg	0.0279	3000		9000	--	0.0073	U	<b>3.9</b>		<b>27</b>	
Phenanthrene	mg/kg	0.99		42533.41269		--	0.27	U	<b>58</b>	J	<b>34</b>	J
Pyrene	mg/kg	0.99	17000	5606.69618	50000	--	0.27	U	5.9	UJ	<b>4</b>	LJ
Toluene	mg/kg	0.0279	45000	466.2808173	140000	--	0.0073	U	<b>0.77</b>		<b>7.8</b>	

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1C-Industrial**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-08-48-515 08/07/2012 Field Sample	DSE-10-48-515 08/06/2012 Field Sample	DSE-13-48-515 08/07/2012 Field Sample	DSE-14-48-515 08/09/2012 Field Sample	DSE-14-48-525 08/09/2012 Field Duplicate	
<b>Metals</b>												
Aluminum	mg/kg	28440	990000		3000000	--	18100		9290		15500	
Antimony	mg/kg	1.62	410	81.76	1200	--	2.3	U-	9	J-	7.1	J-
Arsenic	mg/kg	15	1.6	11.5	160	--	9.6	J	45.1		63.9	
Barium	mg/kg	801	190000	14308	570000	--	11600	J	7070		12400	
Beryllium	mg/kg	3.3	2000	408.8	6000	--	0.94		0.62	J+	1	
Cadmium	mg/kg	1.05	800	100.8685353	2400	--	0.16	U	2.4		0.83	
Calcium	mg/kg	23310				--	6400	J	6880		7560	
Chromium	mg/kg	41.1				--	50.9		23.6		36	
Cobalt	mg/kg	28.8	300	12264	910	--	7.8		9.9		13.5	
Copper	mg/kg	78	41000	8176	120000	--	31.6		41.7		41.7	
Iron	mg/kg	39000	720000		2100000	--	25200	J	19300		24300	
Lead	mg/kg	78.3	800	1400	800	--	86.1		451	J	184	J
Magnesium	mg/kg	14100				--	4570	J	4130		5750	
Manganese	mg/kg	519	23000			--	125	J	365		473	
Mercury	mg/kg	0.186	43		130	--	0.13	U	0.49		0.25	
Nickel	mg/kg	92.4	20000	4088	59000	--	25.9		23.8		32.7	
Potassium	mg/kg	4680				--	2680		1530		2400	
Selenium	mg/kg	6.9	5100	1022	15000	--	2	U	1.2	U	1.7	U
Silver	mg/kg	2.52	5100	1022	15000	--	0.34	U	1.2		0.8	U
Sodium	mg/kg	2766				--	1110		636		579	
Thallium	mg/kg	6.3	10	14.308	31	--	2.8	U	2.5	U	2.5	U
Vanadium	mg/kg	84.6		1430.8		--	41.9		23.2		35.3	
Zinc	mg/kg	226.5	310000	61320	920000	--	91.9	J	402	J	196	J
<b>Organic</b>												
1,1'-Biphenyl	mg/kg	0.99	210	231.7845284	640	--	0.27	U	0.24	U	0.26	U
2-Butanone	mg/kg	0.0288	200000	4351.295519	590000	--	0.18		0.0048	U	0.021	U
2-Methylnaphthalene	mg/kg	0.99	2200	165.2673834	6600	--	0.27	U	0.72		0.26	U
4,4'-DDT	mg/kg	0.0192	7	11.86672004	700	--	0.0052	U	0.0046	U	0.0049	U
Acenaphthylene	mg/kg	0.99		5140.530475		--	0.27	U	0.24	U	0.26	U
Acetone	mg/kg	0.057	630000	1394.143988	1900000	--	0.7		0.022		0.064	
Acetophenone	mg/kg	0.99	100000		310000	--	0.27	U	0.24	U	0.06	U
Anthracene	mg/kg	0.99	170000	47808.42095	500000	--	0.27	U	0.24	U	0.26	U
Aroclor-1260	mg/kg	0.192	0.74		74	--	0.051	U	0.046	UJv	0.05	U
Benzene	mg/kg	0.0279	5.4	3.083911025	540	--	0.0096	U	0.0062	U	0.01	U
Benzo(a)anthracene	mg/kg	0.99	2.1	2.868199367	210	--	0.27	U	0.24	U	0.26	U
Benzo(a)pyrene	mg/kg	0.99	0.21	0.33	21	--	0.27	UJv	0.24	U	0.26	U
Benzo(b)fluoranthene	mg/kg	0.99	2.1	2.868329304	210	--	0.27	UJv	0.24	U	0.26	U
Benzo(g,h,i)perylene	mg/kg	0.99				--	0.27	UJv	0.24	U	0.26	U



**Table 1C-Industrial**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-08-48-515 08/07/2012 Field Sample		DSE-10-48-515 08/06/2012 Field Sample		DSE-13-48-515 08/07/2012 Field Sample		DSE-14-48-515 08/09/2012 Field Sample		DSE-14-48-525 08/09/2012 Field Duplicate	
Benzo(k)fluoranthene	mg/kg	0.99	21	28.79427687	2100	--	0.27	UJv	0.24	U	0.26	U	0.25	U	0.22	U
beta-BHC	mg/kg	0.0099	0.96	1.622748383	96	--	0.0027	U	0.0024	U	0.0025	U	0.0025	U	0.0022	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.99	120	173.0325248	12000	--	<b>0.092</b>	U	0.24	U	0.26	U	0.25	U	0.22	U
Caprolactam	mg/kg	0.99	310000		920000	--	0.27	U	<b>1.9</b>		0.26	U	0.25	U	0.22	U
Chrysene	mg/kg	0.99	210	285.5245365	21000	--	0.27	U	0.24	U	0.26	U	0.25	U	0.22	U
Cyclohexane	mg/kg	0.0279	29000		88000	--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U
Dibenzofuran	mg/kg	0.99	1000	151.6010855	3100	--	0.27	U	0.24	U	0.26	U	0.25	U	0.22	U
Di-n-butylphthalate	mg/kg	0.99	62000		180000	--	<b>0.081</b>	U	0.24	U	<b>0.062</b>	U	<b>0.065</b>	U	0.22	U
Ethylbenzene	mg/kg	0.0279	27	232.5016836	2700	--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U
Fluoranthene	mg/kg	0.99	22000	2885.39429	66000	--	0.27	U	<b>0.057</b>	U	0.26	U	0.25	U	0.22	U
Fluorene	mg/kg	0.99	22000	5407.219769	66000	--	0.27	U	0.24	U	0.26	U	0.25	U	0.22	U
gamma-Chlordane	mg/kg	0.0099				--	0.0027	U	0.0024	U	0.0025	U	0.0025	U	0.0022	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.99	2.1	2.882233474	210	--	0.27	UJv	0.24	U	0.26	U	0.25	U	0.22	U
Isopropylbenzene	mg/kg	0.0279	11000		32000	--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U
m,p-Xylene	mg/kg	0.0279				--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U
Methylcyclohexane	mg/kg	0.0279				--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U
Methylene chloride	mg/kg	0.0279	960	44.33290307	9200	--	0.0096	U	0.0062	U	<b>0.0068</b>	U	0.0062	U	0.0054	U
Naphthalene	mg/kg	0.99	18	42.59771533	1800	--	0.27	U	0.24	U	0.26	U	0.25	U	0.22	U
o-Xylene	mg/kg	0.0279	3000		9000	--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U
Phenanthrene	mg/kg	0.99		42533.41269		--	0.27	U	<b>0.43</b>		0.26	U	0.25	U	0.22	U
Pyrene	mg/kg	0.99	17000	5606.69618	50000	--	0.27	U	<b>0.054</b>	U	0.26	U	0.25	U	0.22	U
Toluene	mg/kg	0.0279	45000	466.2808173	140000	--	0.0096	U	0.0062	U	0.01	U	0.0062	U	0.0054	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1C-Industrial**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-16-48-515 08/07/2012 Field Sample	DSE-20-48-515 08/08/2012 Field Sample	DSE-21-48-515 08/09/2012 Field Sample
<b>Metals</b>									
Aluminum	mg/kg	28440	990000		3000000	--	15500	13500	9480
Antimony	mg/kg	1.62	410	81.76	1200	--	6.6	1	0.54
Arsenic	mg/kg	15	1.6	11.5	160	--	27.6	8.1	5
Barium	mg/kg	801	190000	14308	570000	--	9530	3500	267
Beryllium	mg/kg	3.3	2000	408.8	6000	--	1.1	1.1	1.1
Cadmium	mg/kg	1.05	800	100.8685353	2400	--	0.73	0.58	0.35
Calcium	mg/kg	23310				--	7610	5450	7770
Chromium	mg/kg	41.1				--	23.6	20.1	13.7
Cobalt	mg/kg	28.8	300	12264	910	--	12.4	8	9.6
Copper	mg/kg	78	41000	8176	120000	--	36	23.9	26
Iron	mg/kg	39000	720000		2100000	--	23400	17100	13000
Lead	mg/kg	78.3	800	1400	800	--	162	34.5	26.1
Magnesium	mg/kg	14100				--	5790	4880	4700
Manganese	mg/kg	519	23000			--	343	193	173
Mercury	mg/kg	0.186	43		130	--	0.19	0.054	0.062
Nickel	mg/kg	92.4	20000	4088	59000	--	32.9	31.8	30.8
Potassium	mg/kg	4680				--	2510	2020	1560
Selenium	mg/kg	6.9	5100	1022	15000	--	1.6	2.8	2.3
Silver	mg/kg	2.52	5100	1022	15000	--	0.51	1.2	0.84
Sodium	mg/kg	2766				--	730	586	922
Thallium	mg/kg	6.3	10	14.308	31	--	3	2.9	2.1
Vanadium	mg/kg	84.6		1430.8		--	35.3	33.4	28.2
Zinc	mg/kg	226.5	310000	61320	920000	--	158	78.2	75.5
<b>Organic</b>									
1,1'-Biphenyl	mg/kg	0.99	210	231.7845284	640	--	0.28	U	0.31
2-Butanone	mg/kg	0.0288	200000	4351.295519	590000	--	0.017	U	0.021
2-Methylnaphthalene	mg/kg	0.99	2200	165.2673834	6600	--	0.28	U	0.31
4,4'-DDT	mg/kg	0.0192	7	11.86672004	700	--	0.0054	U	0.0061
Acenaphthylene	mg/kg	0.99		5140.530475		--	0.28	U	0.31
Acetone	mg/kg	0.057	630000	1394.143988	1900000	--	0.07	U	0.021
Acetophenone	mg/kg	0.99	100000		310000	--	0.071	U	0.19
Anthracene	mg/kg	0.99	170000	47808.42095	500000	--	0.28	U	0.31
Aroclor-1260	mg/kg	0.192	0.74		74	--	0.055	U	0.061
Benzene	mg/kg	0.0279	5.4	3.083911025	540	--	0.0083	U	0.01
Benzo(a)anthracene	mg/kg	0.99	2.1	2.868199367	210	--	0.28	U	0.31
Benzo(a)pyrene	mg/kg	0.99	0.21	0.33	21	--	0.28	U	0.31
Benzo(b)fluoranthene	mg/kg	0.99	2.1	2.868329304	210	--	0.28	U	0.31
Benzo(g,h,i)perylene	mg/kg	0.99				--	0.28	U	0.33



**Table 1C-Industrial**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-16-48-515 08/07/2012 Field Sample	DSE-20-48-515 08/08/2012 Field Sample	DSE-21-48-515 08/09/2012 Field Sample
Benzo(k)fluoranthene	mg/kg	0.99	21	28.79427687	2100	--	0.28	U	0.31
beta-BHC	mg/kg	0.0099	0.96	1.622748383	96	--	0.0028	U	0.0032
Bis(2-ethylhexyl)phthalate	mg/kg	0.99	120	173.0325248	12000	--	0.28	U	0.31
Caprolactam	mg/kg	0.99	310000		920000	--	0.28	U	0.31
Chrysene	mg/kg	0.99	210	285.5245365	21000	--	0.28	U	0.31
Cyclohexane	mg/kg	0.0279	29000		88000	--	0.0083	U	0.01
Dibenzofuran	mg/kg	0.99	1000	151.6010855	3100	--	0.28	U	0.31
Di-n-butylphthalate	mg/kg	0.99	62000		180000	--	<b>0.079</b>	U	<b>0.063</b>
Ethylbenzene	mg/kg	0.0279	27	232.5016836	2700	--	0.0083	U	0.01
Fluoranthene	mg/kg	0.99	22000	2885.39429	66000	--	0.28	U	0.31
Fluorene	mg/kg	0.99	22000	5407.219769	66000	--	0.28	U	0.31
gamma-Chlordane	mg/kg	0.0099				--	0.0028	U	0.0032
Indeno(1,2,3-cd)pyrene	mg/kg	0.99	2.1	2.882233474	210	--	0.28	U	0.31
Isopropylbenzene	mg/kg	0.0279	11000		32000	--	0.0083	U	0.01
m,p-Xylene	mg/kg	0.0279				--	0.0083	U	0.01
Methylcyclohexane	mg/kg	0.0279				--	0.0083	U	0.01
Methylene chloride	mg/kg	0.0279	960	44.33290307	9200	--	<b>0.0038</b>	U	0.01
Naphthalene	mg/kg	0.99	18	42.59771533	1800	--	0.28	U	0.31
o-Xylene	mg/kg	0.0279	3000		9000	--	0.0083	U	0.01
Phenanthrene	mg/kg	0.99		42533.41269		--	0.28	U	0.31
Pyrene	mg/kg	0.99	17000	5606.69618	50000	--	0.28	U	0.31
Toluene	mg/kg	0.0279	45000	466.2808173	140000	--	0.0083	U	0.01

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1C-Residential**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-48-515 08/06/2012 Field Sample	DSE-05-24-525 08/08/2012 Field Duplicate	DSE-05-48-515 08/08/2012 Field Sample	DSE-06-48-515 08/07/2012 Field Sample	DSE-07-48-515 08/06/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	28440	77000		230000	--	18900		5090		4850	
Antimony	mg/kg	1.62	31	3.128571429	94	--	2.1	LJ-	12.8	J-	12.4	J-
Arsenic	mg/kg	15	0.39	11.5	39	--	26.4		37.4		35.6	
Barium	mg/kg	801	15000	547.5	46000	--	3300		7410		7140	
Beryllium	mg/kg	3.3	160	15.64285714	470	--	1.3		0.49	LJ	0.47	LJ
Cadmium	mg/kg	1.05	70	3.89979486	210	--	0.15	LJ	8.5	J+	8.4	J+
Calcium	mg/kg	23310				--	9290		22300		21100	
Chromium	mg/kg	41.1				--	20.8		337		330	
Cobalt	mg/kg	28.8	23	469.2857143	70	--	11.3		4.9	LJ	4.9	U
Copper	mg/kg	78	3100	312.8571429	9400	--	24		97.6		95.6	
Iron	mg/kg	39000	55000		160000	--	24600		20200		19900	
Lead	mg/kg	78.3	400	400	400	--	42.3	J	1030		989	
Magnesium	mg/kg	14100				--	6510		3500		3350	
Manganese	mg/kg	519	1800			--	296		866		851	
Mercury	mg/kg	0.186	10		30	--	0.054	LJ	0.12	U	1.8	
Nickel	mg/kg	92.4	1500	156.4285714	4600	--	29.9		20.4	J	19.6	J
Potassium	mg/kg	4680				--	3490		1150		1070	
Selenium	mg/kg	6.9	390	39.10714286	1200	--	2.1	LJ	2.4	LJ	2.4	LJ
Silver	mg/kg	2.52	390	39.10714286	1200	--	0.27	LJ	5.9		5.7	
Sodium	mg/kg	2766				--	1170		2550		2420	
Thallium	mg/kg	6.3	0.78	0.5475	2.3	--	3.3	U	1.1	LJ	1.1	LJ
Vanadium	mg/kg	84.6			54.75	--	42.2		16.3		15.4	
Zinc	mg/kg	226.5	23000	2346.428571	70000	--	88.1	J	1300		1290	
<b>Organic</b>												
1,1'-Biphenyl	mg/kg	0.99	51	231.7845284	150	--	0.27	U	20	J	5.6	UJ
2-Butanone	mg/kg	0.0288	28000	590.9671771	84000	--	0.015	U	0.91	U	6.9	U
2-Methylnaphthalene	mg/kg	0.99	230	22.15593188	690	--	0.27	U	400	J	290	J
4,4'-DDT	mg/kg	0.0192	1.7	1.712656495	110	--	0.0052	U	0.0047	UR	0.0047	UR
Acenaphthylene	mg/kg	0.99		346.6387731		--	0.27	U	6.6	J	5.6	UJ
Acetone	mg/kg	0.057	61000	174.2704067	180000	--	0.015	U	0.91	U	6.9	U
Acetophenone	mg/kg	0.99	7800		23000	--	0.25	LJ	5.9	UJ	5.6	UJ
Anthracene	mg/kg	0.99	17000	2188.505596	52000	--	0.27	U	7.2	J	32	JN
Aroclor-1260	mg/kg	0.192	0.22		22	--	0.053	U	0.047	U	0.048	U
Benzene	mg/kg	0.0279	1.1	1.486209861	110	--	0.0073	U	0.45	U	1.8	UJ
Benzo(a)anthracene	mg/kg	0.99	0.15	0.620205398	15	--	0.27	U	5.9	UJ	5.6	UJ
Benzo(a)pyrene	mg/kg	0.99	0.015	0.33	1.5	--	0.27	U	5.9	UJ	5.6	UJ
Benzo(b)fluoranthene	mg/kg	0.99	0.15	0.620217342	15	--	0.27	U	5.9	UJ	5.6	UJ
Benzo(g,h,i)perylene	mg/kg	0.99				--	0.27	U	5.9	UJ	5.6	UJ
Benzo(k)fluoranthene	mg/kg	0.99	1.5	6.21235289	150	--	0.27	U	5.9	UJ	5.6	UJ



**Table 1C-Residential**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-48-515 08/06/2012 Field Sample	DSE-05-24-525 08/08/2012 Field Duplicate	DSE-05-48-515 08/08/2012 Field Sample	DSE-06-48-515 08/07/2012 Field Sample	DSE-07-48-515 08/06/2012 Field Sample	
beta-BHC	mg/kg	0.0099	0.27	0.291310659	27	--	0.0027	U	0.0024	UR	0.0024	UR
Bis(2-ethylhexyl)phthalate	mg/kg	0.99	35	34.51630075	3500	--	0.27	U	5.9	UJ	5.6	UJ
Caprolactam	mg/kg	0.99	31000		92000	--	0.27	U	5.9	UJ	5.6	UJ
Chrysene	mg/kg	0.99	15	61.90114483	1500	--	0.27	U	5.9	UJ	5.6	UJ
Cyclohexane	mg/kg	0.0279	7000		21000	--	0.0073	U	<b>0.37</b>	UJv	<b>2</b>	U
Dibenzofuran	mg/kg	0.99	78	29.31718855	230	--	0.27	U	<b>18</b>	J	5.6	UJ
Di-n-butylphthalate	mg/kg	0.99	6100		18000	--	<b>0.059</b>	U	5.9	UJ	5.6	UJ
Ethylbenzene	mg/kg	0.0279	5.4	163.6661254	540	--	0.0073	U	<b>1.8</b>		<b>12</b>	
Fluoranthene	mg/kg	0.99	2300	224.4277443	6900	--	0.27	U	5.9	UJ	5.6	UJ
Fluorene	mg/kg	0.99	2300	276.6833948	6900	--	0.27	U	<b>45</b>	J	<b>34</b>	J
gamma-Chlordane	mg/kg	0.0099				--	0.0027	U	<b>0.0018</b>	UJN	<b>0.0034</b>	JN
Indeno(1,2,3-cd)pyrene	mg/kg	0.99	0.15	0.621491921	15	--	0.27	U	5.9	UJ	5.6	UJ
Isopropylbenzene	mg/kg	0.0279	2100		6200	--	0.0073	U	<b>0.8</b>		<b>4.8</b>	
m,p-Xylene	mg/kg	0.0279				--	0.0073	U	<b>9.7</b>		<b>64</b>	
Methylcyclohexane	mg/kg	0.0279				--	0.0073	U	<b>2.1</b>	Jv	<b>10</b>	
Methylene chloride	mg/kg	0.0279	56	18.69721484	1100	--	0.0073	U	0.45	U	3.5	U
Naphthalene	mg/kg	0.99	3.6	6.19574424	360	--	0.27	U	<b>130</b>	J	<b>100</b>	J
o-Xylene	mg/kg	0.0279	690		2100	--	0.0073	U	<b>3.9</b>		<b>27</b>	
Phenanthrene	mg/kg	0.99		2108.62766		--	0.27	U	<b>58</b>	J	<b>34</b>	J
Pyrene	mg/kg	0.99	1700	229.1608461	5200	--	0.27	U	5.9	UJ	4	U
Toluene	mg/kg	0.0279	5000	67.63078972	15000	--	0.0073	U	<b>0.77</b>		<b>7.8</b>	

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1C-Residential**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs	LA RECAP Residential Soil	EPA RMLs	Sample ID Date	DSE-08-48-515 08/07/2012 Field Sample	DSE-10-48-515 08/06/2012 Field Sample	DSE-13-48-515 08/07/2012 Field Sample	DSE-14-48-515 08/09/2012 Field Sample	DSE-14-48-525 08/09/2012 Field Duplicate	
<b>Metals</b>												
Aluminum	mg/kg	28440	77000		230000	--	18100	9290	15500	7990		7840
Antimony	mg/kg	1.62	31	3.128571429	94	--	2.3	LJ-	9	J-	7.1	J-
Arsenic	mg/kg	15	0.39	11.5	39	--	9.6	J	45.1		63.9	
Barium	mg/kg	801	15000	547.5	46000	--	11600	J	7070		12400	
Beryllium	mg/kg	3.3	160	15.64285714	470	--	0.94		0.62	J+	1	
Cadmium	mg/kg	1.05	70	3.89979486	210	--	0.16	LJ	2.4		0.83	
Calcium	mg/kg	23310				--	6400	J	6880		7560	
Chromium	mg/kg	41.1				--	50.9		23.6		36	
Cobalt	mg/kg	28.8	23	469.2857143	70	--	7.8		9.9		13.5	
Copper	mg/kg	78	3100	312.8571429	9400	--	31.6		41.7		41.7	
Iron	mg/kg	39000	55000		160000	--	25200	J	19300		24300	
Lead	mg/kg	78.3	400	400	400	--	86.1		451	J	184	J
Magnesium	mg/kg	14100				--	4570	J	4130		5750	
Manganese	mg/kg	519	1800			--	125	J	365		473	
Mercury	mg/kg	0.186	10		30	--	0.13	LJ	0.49		0.25	
Nickel	mg/kg	92.4	1500	156.4285714	4600	--	25.9		23.8		32.7	
Potassium	mg/kg	4680				--	2680		1530		2400	
Selenium	mg/kg	6.9	390	39.10714286	1200	--	2	LJ	1.2	LJ	1.7	LJ
Silver	mg/kg	2.52	390	39.10714286	1200	--	0.34	LJ	1.2		0.8	LJ
Sodium	mg/kg	2766				--	1110		636		579	
Thallium	mg/kg	6.3	0.78	0.5475	2.3	--	2.8	U	2.5	U	2.5	U
Vanadium	mg/kg	84.6			54.75	--	41.9		23.2		35.3	
Zinc	mg/kg	226.5	23000	2346.428571	70000	--	91.9	J	402	J	196	J
<b>Organic</b>												
1,1'-Biphenyl	mg/kg	0.99	51	231.7845284	150	--	0.27	U	0.24	U	0.26	U
2-Butanone	mg/kg	0.0288	28000	590.9671771	84000	--	0.18		0.0048	LJ	0.021	U
2-Methylnaphthalene	mg/kg	0.99	230	22.15593188	690	--	0.27	U	0.72		0.26	U
4,4'-DDT	mg/kg	0.0192	1.7	1.712656495	110	--	0.0052	U	0.0046	U	0.0049	U
Acenaphthylene	mg/kg	0.99		346.6387731		--	0.27	U	0.24	U	0.26	U
Acetone	mg/kg	0.057	61000	174.2704067	180000	--	0.7		0.022		0.064	
Acetophenone	mg/kg	0.99	7800		23000	--	0.27	U	0.24	U	0.06	LJ
Anthracene	mg/kg	0.99	17000	2188.505596	52000	--	0.27	U	0.24	U	0.26	U
Aroclor-1260	mg/kg	0.192	0.22		22	--	0.051	U	0.046	UJv	0.05	U
Benzene	mg/kg	0.0279	1.1	1.486209861	110	--	0.0096	U	0.0062	U	0.01	U
Benzo(a)anthracene	mg/kg	0.99	0.15	0.620205398	15	--	0.27	U	0.24	U	0.26	U
Benzo(a)pyrene	mg/kg	0.99	0.015	0.33	1.5	--	0.27	UJv	0.24	U	0.26	U
Benzo(b)fluoranthene	mg/kg	0.99	0.15	0.620217342	15	--	0.27	UJv	0.24	U	0.26	U
Benzo(g,h,i)perylene	mg/kg	0.99				--	0.27	UJv	0.24	U	0.26	U
Benzo(k)fluoranthene	mg/kg	0.99	1.5	6.21235289	150	--	0.27	UJv	0.24	U	0.26	U



**Table 1C-Residential**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date	DSE-08-48-515 08/07/2012 Field Sample	DSE-10-48-515 08/06/2012 Field Sample	DSE-13-48-515 08/07/2012 Field Sample	DSE-14-48-515 08/09/2012 Field Sample	DSE-14-48-525 08/09/2012 Field Duplicate	
beta-BHC	mg/kg	0.0099	0.27	0.291310659	27	--	0.0027	U	0.0024	U	0.0025	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.99	35	34.51630075	3500	--	<b>0.092</b>	LJ	0.24	U	0.26	U
Caprolactam	mg/kg	0.99	31000		92000	--	0.27	U	<b>1.9</b>		0.26	U
Chrysene	mg/kg	0.99	15	61.90114483	1500	--	0.27	U	0.24	U	0.26	U
Cyclohexane	mg/kg	0.0279	7000		21000	--	0.0096	U	0.0062	U	0.01	U
Dibenzofuran	mg/kg	0.99	78	29.31718855	230	--	0.27	U	0.24	U	0.26	U
Di-n-butylphthalate	mg/kg	0.99	6100		18000	--	<b>0.081</b>	LJ	0.24	U	<b>0.062</b>	LJ
Ethylbenzene	mg/kg	0.0279	5.4	163.6661254	540	--	0.0096	U	0.0062	U	0.01	U
Fluoranthene	mg/kg	0.99	2300	224.4277443	6900	--	0.27	U	<b>0.057</b>	LJ	0.26	U
Fluorene	mg/kg	0.99	2300	276.6833948	6900	--	0.27	U	0.24	U	0.26	U
gamma-Chlordane	mg/kg	0.0099				--	0.0027	U	0.0024	U	0.0025	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.99	0.15	0.621491921	15	--	0.27	UJv	0.24	U	0.26	U
Isopropylbenzene	mg/kg	0.0279	2100		6200	--	0.0096	U	0.0062	U	0.01	U
m,p-Xylene	mg/kg	0.0279				--	0.0096	U	0.0062	U	0.01	U
Methylcyclohexane	mg/kg	0.0279				--	0.0096	U	0.0062	U	0.01	U
Methylene chloride	mg/kg	0.0279	56	18.69721484	1100	--	0.0096	U	0.0062	U	<b>0.0068</b>	LJ
Naphthalene	mg/kg	0.99	3.6	6.19574424	360	--	0.27	U	0.24	U	0.26	U
o-Xylene	mg/kg	0.0279	690		2100	--	0.0096	U	0.0062	U	0.01	U
Phenanthrene	mg/kg	0.99		2108.62766		--	0.27	U	<b>0.43</b>		0.26	U
Pyrene	mg/kg	0.99	1700	229.1608461	5200	--	0.27	U	<b>0.054</b>	LJ	0.26	U
Toluene	mg/kg	0.0279	5000	67.63078972	15000	--	0.0096	U	0.0062	U	0.01	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1C-Residential**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-16-48-515 08/07/2012 Field Sample	DSE-20-48-515 08/08/2012 Field Sample	DSE-21-48-515 08/09/2012 Field Sample
<b>Metals</b>									
Aluminum	mg/kg	28440	77000		230000	--	15500	13500	9480
Antimony	mg/kg	1.62	31	3.128571429	94	--	6.6	J-	0.54
Arsenic	mg/kg	15	0.39	11.5	39	--	27.6	J	5
Barium	mg/kg	801	15000	547.5	46000	--	9530	J	3500
Beryllium	mg/kg	3.3	160	15.64285714	470	--	1.1	1.1	1.1
Cadmium	mg/kg	1.05	70	3.89979486	210	--	0.73	0.58	0.35
Calcium	mg/kg	23310				--	7610	J	5450
Chromium	mg/kg	41.1				--	23.6	20.1	13.7
Cobalt	mg/kg	28.8	23	469.2857143	70	--	12.4	8	9.6
Copper	mg/kg	78	3100	312.8571429	9400	--	36	23.9	26
Iron	mg/kg	39000	55000		160000	--	23400	J	17100
Lead	mg/kg	78.3	400	400	400	--	162	34.5	26.1
Magnesium	mg/kg	14100				--	5790	J	4880
Manganese	mg/kg	519	1800			--	343	J	193
Mercury	mg/kg	0.186	10		30	--	0.19	0.054	0.062
Nickel	mg/kg	92.4	1500	156.4285714	4600	--	32.9	31.8	30.8
Potassium	mg/kg	4680				--	2510	2020	1560
Selenium	mg/kg	6.9	390	39.10714286	1200	--	1.6	J	2.8
Silver	mg/kg	2.52	390	39.10714286	1200	--	0.51	J	1.2
Sodium	mg/kg	2766				--	730	586	922
Thallium	mg/kg	6.3	0.78	0.5475	2.3	--	3	U	2.9
Vanadium	mg/kg	84.6		54.75		--	35.3	33.4	28.2
Zinc	mg/kg	226.5	23000	2346.428571	70000	--	158	J	78.2
<b>Organic</b>									
1,1'-Biphenyl	mg/kg	0.99	51	231.7845284	150	--	0.28	U	0.31
2-Butanone	mg/kg	0.0288	28000	590.9671771	84000	--	0.017	U	0.021
2-Methylnaphthalene	mg/kg	0.99	230	22.15593188	690	--	0.28	U	0.31
4,4'-DDT	mg/kg	0.0192	1.7	1.712656495	110	--	0.0054	U	0.0061
Acenaphthylene	mg/kg	0.99		346.6387731		--	0.28	U	0.31
Acetone	mg/kg	0.057	61000	174.2704067	180000	--	0.07	U	0.021
Acetophenone	mg/kg	0.99	7800		23000	--	0.071	J	0.19
Anthracene	mg/kg	0.99	17000	2188.505596	52000	--	0.28	U	0.31
Aroclor-1260	mg/kg	0.192	0.22		22	--	0.055	U	0.061
Benzene	mg/kg	0.0279	1.1	1.486209861	110	--	0.0083	U	0.01
Benzo(a)anthracene	mg/kg	0.99	0.15	0.620205398	15	--	0.28	U	0.31
Benzo(a)pyrene	mg/kg	0.99	0.015	0.33	1.5	--	0.28	U	0.31
Benzo(b)fluoranthene	mg/kg	0.99	0.15	0.620217342	15	--	0.28	U	0.31
Benzo(g,h,i)perylene	mg/kg	0.99				--	0.28	U	0.31
Benzo(k)fluoranthene	mg/kg	0.99	1.5	6.21235289	150	--	0.28	U	0.31



**Table 1C-Residential**  
**Soil Sample Analytical Results Summary at 48 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date	DSE-16-48-515 08/07/2012 Field Sample	DSE-20-48-515 08/08/2012 Field Sample	DSE-21-48-515 08/09/2012 Field Sample
beta-BHC	mg/kg	0.0099	0.27	0.291310659	27	--	0.0028	U	0.0032
Bis(2-ethylhexyl)phthalate	mg/kg	0.99	35	34.51630075	3500	--	0.28	U	0.31
Caprolactam	mg/kg	0.99	31000		92000	--	0.28	U	0.31
Chrysene	mg/kg	0.99	15	61.90114483	1500	--	0.28	U	0.31
Cyclohexane	mg/kg	0.0279	7000		21000	--	0.0083	U	0.01
Dibenzofuran	mg/kg	0.99	78	29.31718855	230	--	0.28	U	0.31
Di-n-butylphthalate	mg/kg	0.99	6100		18000	--	<b>0.079</b>	U	<b>0.063</b>
Ethylbenzene	mg/kg	0.0279	5.4	163.6661254	540	--	0.0083	U	0.01
Fluoranthene	mg/kg	0.99	2300	224.4277443	6900	--	0.28	U	0.31
Fluorene	mg/kg	0.99	2300	276.6833948	6900	--	0.28	U	0.31
gamma-Chlordane	mg/kg	0.0099				--	0.0028	U	0.0032
Indeno(1,2,3-cd)pyrene	mg/kg	0.99	0.15	0.621491921	15	--	0.28	U	0.31
Isopropylbenzene	mg/kg	0.0279	2100		6200	--	0.0083	U	0.01
m,p-Xylene	mg/kg	0.0279				--	0.0083	U	0.01
Methylcyclohexane	mg/kg	0.0279				--	0.0083	U	0.01
Methylene chloride	mg/kg	0.0279	56	18.69721484	1100	--	<b>0.0038</b>	U	0.01
Naphthalene	mg/kg	0.99	3.6	6.19574424	360	--	0.28	U	0.31
o-Xylene	mg/kg	0.0279	690		2100	--	0.0083	U	0.01
Phenanthrene	mg/kg	0.99		2108.62766		--	0.28	U	0.31
Pyrene	mg/kg	0.99	1700	229.1608461	5200	--	0.28	U	0.31
Toluene	mg/kg	0.0279	5000	67.63078972	15000	--	0.0083	U	0.01

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1D-Industrial**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-72-515 08/06/2012 Field Sample	DSE-05-72-515 08/08/2012 Field Sample	DSE-06-72-515 08/07/2012 Field Sample	DSE-07-72-515 08/06/2012 Field Sample	DSE-08-72-515 08/07/2012 Field Sample
<b>Metals</b>											
Aluminum	mg/kg	26130	990000		3000000	--	19200	6410		12200	
Antimony	mg/kg	2.25	410	81.76	1200	--	1.9	LJ-	11.4	J-	4.1
Arsenic	mg/kg	17.1	1.6	11.5	160	--	12.4		30.9		20.1
Barium	mg/kg	1584	190000	14308	570000	--	2970		7000		11000
Beryllium	mg/kg	3	2000	408.8	6000	--	1.3		0.58		0.83
Cadmium	mg/kg	0.63	800	100.8685353	2400	--	0.31	LJ	6.8	J+	1.9
Calcium	mg/kg	22380				--	14700		19600		13900
Chromium	mg/kg	37.5				--	22.8		393		65.3
Cobalt	mg/kg	24.6	300	12264	910	--	12.6		5.6	J	10.9
Copper	mg/kg	77.1	41000	8176	120000	--	26		79.6		115
Iron	mg/kg	63600	720000		2100000	--	23100		21500		25200
Lead	mg/kg	91.2	800	1400	800	--	52.6	J	931		280
Magnesium	mg/kg	11760				--	6160		3630		4270
Manganese	mg/kg	2523	23000			--	343		703		521
Mercury	mg/kg	0.096	43		130	--	0.061	LJ	1.6		0.38
Nickel	mg/kg	67.2	20000	4088	59000	--	30		22.4	J	31.5
Potassium	mg/kg	3630				--	2530		1360		2000
Selenium	mg/kg	8.1	5100	1022	15000	--	2	LJ	2.6	LJ	2
Silver	mg/kg	2.58	5100	1022	15000	--	0.19	LJ	4.9		1
Sodium	mg/kg	3060				--	1300		2280		1570
Thallium	mg/kg	6.6	10	14.308	31	--	2.7	U	0.52	LJ	2.7
Vanadium	mg/kg	81		1430.8		--	41.8		18.1		29.6
Zinc	mg/kg	199.5	310000	61320	920000	--	109	J	1070		511
<b>Organic</b>											
1,1'-Biphenyl	mg/kg	1.17	210	231.7845284	640	--	0.27	U	11	J	0.55
2-Butanone	mg/kg	0.108	200000	4351.295519	590000	--	0.026		3.8	U	0.024
2-Methylnaphthalene	mg/kg	1.17	2200	165.2673834	6600	--	0.27	U	200	J	41
Acenaphthene	mg/kg	1.17	33000	6124.439919	99000	--	0.27	U	5.4	UJ	0.97
Acetone	mg/kg	0.36	630000	1394.143988	1900000	--	0.11		3.8	U	0.12
Acetophenone	mg/kg	1.17	100000		310000	--	0.11	LJ	5.4	UJ	0.79
alpha-Chlordane	mg/kg	0.0117				--	0.0026	U	0.0025	U	0.0034
Anthracene	mg/kg	1.17	170000	47808.42095	500000	--	0.27	U	2.2	LJ	1.5
Aroclor-1254	mg/kg	0.231	0.74		32	--	0.051	U	0.049	U	0.067
Aroclor-1260	mg/kg	0.231	0.74		74	--	0.051	U	0.049	U	0.075
Benzene	mg/kg	0.042	5.4	3.083911025	540	--	0.0064	U	1.1	LJ	0.012
Benzo(a)anthracene	mg/kg	1.17	2.1	2.868199367	210	--	0.27	U	5.4	UJ	0.34
Benzo(a)pyrene	mg/kg	1.17	0.21	0.33	21	--	0.27	U	5.4	UJ	0.33
Benzo(b)fluoranthene	mg/kg	1.17	2.1	2.868329304	210	--	0.27	U	5.4	UJ	0.39



**Table 1D-Industrial**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-72-515 08/06/2012 Field Sample	DSE-05-72-515 08/08/2012 Field Sample	DSE-06-72-515 08/07/2012 Field Sample	DSE-07-72-515 08/06/2012 Field Sample	DSE-08-72-515 08/07/2012 Field Sample
Benzo(g,h,i)perylene	mg/kg	1.17				--	0.27 U	5.4 UJ	0.46 Jv	0.27 U	0.29 U
Benzo(k)fluoranthene	mg/kg	1.17	21	28.79427687	2100	--	0.27 U	5.4 UJ	0.3 Lv	0.27 U	0.29 U
Bis(2-ethylhexyl)phthalate	mg/kg	1.17	120	173.0325248	12000	--	0.27 U	5.4 UJ	0.19 Lv	0.27 U	0.14 Lv
Carbazole	mg/kg	1.17				--	0.27 U	5.4 UJ	0.84	0.27 U	0.29 U
Carbon disulfide	mg/kg	0.042	3700	250.6974251	11000	--	0.0064 U	1.9 U	0.012 U	0.0068 U	0.0098 U
Chrysene	mg/kg	1.17	210	285.5245365	21000	--	0.27 U	5.4 UJ	0.61	0.27 U	0.29 U
Cyclohexane	mg/kg	0.042	29000		88000	--	0.0064 U	1.1 U	0.012 U	0.0068 U	0.0098 U
Dibenzo(a,h)anthracene	mg/kg	1.17	0.21	0.33	21	--	0.27 U	5.4 UJ	0.11 Lv	0.27 U	0.29 U
Dibenzofuran	mg/kg	1.17	1000	151.6010855	3100	--	0.27 U	9.4 J	0.6	0.27 U	0.29 U
Di-n-butylphthalate	mg/kg	1.17	62000		180000	--	0.27 U	5.4 UJ	0.35 UR	0.27 U	0.29 U
Endosulfan sulfate	mg/kg	0.0231				--	0.0051 U	0.0049 U	0.0067 U	0.0052 U	0.0055 U
Ethylbenzene	mg/kg	0.042	27	232.5016836	2700	--	0.0064 U	1.9 U	0.0049 U	0.0068 U	0.0098 U
Fluoranthene	mg/kg	1.17	22000	2885.39429	66000	--	0.27 U	5.4 UJ	0.62	0.27 U	0.29 U
Fluorene	mg/kg	1.17	22000	5407.219769	66000	--	0.27 U	22 J	1.3	0.27 U	0.11 Lv
Indeno(1,2,3-cd)pyrene	mg/kg	1.17	2.1	2.882233474	210	--	0.27 U	5.4 UJ	0.26 Lv	0.27 U	0.29 U
Isopropylbenzene	mg/kg	0.042	11000		32000	--	0.0064 U	2.8 U	0.0081 U	0.0068 U	0.0098 U
m,p-Xylene	mg/kg	0.042				--	0.0064 U	38 U	0.0063 U	0.0068 U	0.0098 U
Methyl acetate	mg/kg	0.042	1000000		3100000	--	0.0064 U	2 U	0.012 U	0.0068 U	0.0098 U
Methylcyclohexane	mg/kg	0.042				--	0.0064 U	6.2 U	0.0062 U	0.0068 U	0.0098 U
Naphthalene	mg/kg	1.17	18	42.59771533	1800	--	0.27 U	76 J	11	0.27 U	0.29 U
o-Xylene	mg/kg	0.042	3000		9000	--	0.0064 U	17 U	0.0098 U	0.0068 U	0.0098 U
Phenanthrene	mg/kg	1.17		42533.41269		--	0.27 U	24 J	3.9	0.27 U	0.25 Lv
Phenol	mg/kg	1.17	180000	14532.1499	550000	--	0.27 U	5.4 UJ	0.35 U	0.27 U	0.29 U
Pyrene	mg/kg	1.17	17000	5606.69618	50000	--	0.27 U	2.5 U	0.96	0.27 U	0.29 U
Toluene	mg/kg	0.042	45000	466.2808173	140000	--	0.0064 U	7.2 U	0.012 U	0.0068 U	0.0098 U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1D-Industrial**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-72-515 08/06/2012 Field Sample	DSE-13-72-515 08/07/2012 Field Sample	DSE-14-72-515 08/09/2012 Field Sample	DSE-16-72-515 08/07/2012 Field Sample	DSE-20-72-515 08/08/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	26130	990000		3000000	--	7760		22900		8830	
Antimony	mg/kg	2.25	410	81.76	1200	--	11.9	J-	2.5	U-	0.88	U-
Arsenic	mg/kg	17.1	1.6	11.5	160	--	46.9		8.1	J	7.1	
Barium	mg/kg	1584	190000	14308	570000	--	7020		426	J	2790	J-
Beryllium	mg/kg	3	2000	408.8	6000	--	0.62	J+	1.1		0.74	
Cadmium	mg/kg	0.63	800	100.8685353	2400	--	4.5		1		0.45	U
Calcium	mg/kg	22380				--	7390		13000	J	4720	
Chromium	mg/kg	37.5				--	24.3		22.3		17.9	
Cobalt	mg/kg	24.6	300	12264	910	--	8.9		22.4		8.3	
Copper	mg/kg	77.1	41000	8176	120000	--	54.7		16		22	J
Iron	mg/kg	63600	720000		2100000	--	21200		80800	J	17000	
Lead	mg/kg	91.2	800	1400	800	--	741	J	41.7		50.3	
Magnesium	mg/kg	11760				--	3590		7090	J	4160	
Manganese	mg/kg	2523	23000			--	479		2430	J	387	J
Mercury	mg/kg	0.096	43		130	--	1.4		0.038	U	0.16	
Nickel	mg/kg	67.2	20000	4088	59000	--	21.3		37.7		25.9	
Potassium	mg/kg	3630				--	1260		3140		1490	
Selenium	mg/kg	8.1	5100	1022	15000	--	1.6	U	3.3	U	2.4	U
Silver	mg/kg	2.58	5100	1022	15000	--	2.8		0.79	U	0.15	U
Sodium	mg/kg	3060				--	581		1400		708	
Thallium	mg/kg	6.6	10	14.308	31	--	2.5	U	0.57	U	2.7	UJ
Vanadium	mg/kg	81		1430.8		--	21		48.8		23.9	
Zinc	mg/kg	199.5	310000	61320	920000	--	684	J	95.5	J	107	J-
<b>Organic</b>												
1,1'-Biphenyl	mg/kg	1.17	210	231.7845284	640	--	0.23	U	0.28	U	0.24	U
2-Butanone	mg/kg	0.108	200000	4351.295519	590000	--	0.019		0.015	U	0.012	U
2-Methylnaphthalene	mg/kg	1.17	2200	165.2673834	6600	--	3.1		0.28	U	0.24	U
Acenaphthene	mg/kg	1.17	33000	6124.439919	99000	--	0.23	U	0.28	U	0.24	U
Acetone	mg/kg	0.36	630000	1394.143988	1900000	--	0.026		0.031		0.012	U
Acetophenone	mg/kg	1.17	100000		310000	--	0.23	U	0.17	U	0.24	U
alpha-Chlordane	mg/kg	0.0117				--	0.0023	U	0.0014	U	0.0024	U
Anthracene	mg/kg	1.17	170000	47808.42095	500000	--	0.2	U	0.28	U	0.24	U
Aroclor-1254	mg/kg	0.231	0.74		32	--	0.035	U	0.054	U	0.047	U
Aroclor-1260	mg/kg	0.231	0.74		74	--	0.045	U	0.054	U	0.047	U
Benzene	mg/kg	0.042	5.4	3.083911025	540	--	0.0063	U	0.0076	U	0.0062	U
Benzo(a)anthracene	mg/kg	1.17	2.1	2.868199367	210	--	0.23	U	0.28	U	0.24	U
Benzo(a)pyrene	mg/kg	1.17	0.21	0.33	21	--	0.23	U	0.28	U	0.24	U
Benzo(b)fluoranthene	mg/kg	1.17	2.1	2.868329304	210	--	0.23	U	0.28	U	0.24	U



**Table 1D-Industrial**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-72-515 08/06/2012 Field Sample	DSE-13-72-515 08/07/2012 Field Sample	DSE-14-72-515 08/09/2012 Field Sample	DSE-16-72-515 08/07/2012 Field Sample	DSE-20-72-515 08/08/2012 Field Sample	
Benzo(g,h,i)perylene	mg/kg	1.17				--	0.23	U	0.28	U	0.24	U
Benzo(k)fluoranthene	mg/kg	1.17	21	28.79427687	2100	--	0.23	U	0.28	U	0.24	U
Bis(2-ethylhexyl)phthalate	mg/kg	1.17	120	173.0325248	12000	--	0.23	U	0.28	U	0.24	U
Carbazole	mg/kg	1.17				--	0.23	U	0.28	U	0.24	U
Carbon disulfide	mg/kg	0.042	3700	250.6974251	11000	--	0.0063	U	0.0076	U	0.0062	U
Chrysene	mg/kg	1.17	210	285.5245365	21000	--	0.23	U	0.28	U	0.24	U
Cyclohexane	mg/kg	0.042	29000		88000	--	<b>0.0027</b>	U	0.0076	U	0.0062	U
Dibenzo(a,h)anthracene	mg/kg	1.17	0.21	0.33	21	--	0.23	U	0.28	U	0.24	U
Dibenzofuran	mg/kg	1.17	1000	151.6010855	3100	--	0.23	U	0.28	U	0.24	U
Di-n-butylphthalate	mg/kg	1.17	62000		180000	--	0.23	U	<b>0.074</b>	U	<b>0.048</b>	U
Endosulfan sulfate	mg/kg	0.0231				--	0.0045	U	0.0053	U	0.0047	U
Ethylbenzene	mg/kg	0.042	27	232.5016836	2700	--	0.0063	U	0.0076	U	0.0062	U
Fluoranthene	mg/kg	1.17	22000	2885.39429	66000	--	0.23	U	0.28	U	0.24	U
Fluorene	mg/kg	1.17	22000	5407.219769	66000	--	0.23	U	0.28	U	0.24	U
Indeno(1,2,3-cd)pyrene	mg/kg	1.17	2.1	2.882233474	210	--	0.23	U	0.28	U	0.24	U
Isopropylbenzene	mg/kg	0.042	11000		32000	--	<b>0.0059</b>	U	0.0076	U	0.0062	U
m,p-Xylene	mg/kg	0.042				--	0.0063	U	0.0076	U	0.0062	U
Methyl acetate	mg/kg	0.042	1000000		3100000	--	0.0063	U	0.0076	U	0.0062	U
Methylcyclohexane	mg/kg	0.042				--	<b>0.016</b>	J^	0.0076	U	0.0062	U
Naphthalene	mg/kg	1.17	18	42.59771533	1800	--	0.23	U	0.28	U	0.24	U
o-Xylene	mg/kg	0.042	3000		9000	--	0.0063	U	0.0076	U	0.0062	U
Phenanthrene	mg/kg	1.17		42533.41269		--	<b>2</b>		0.28	U	0.24	U
Phenol	mg/kg	1.17	180000	14532.1499	550000	--	0.23	U	<b>0.084</b>	U	0.24	U
Pyrene	mg/kg	1.17	17000	5606.69618	50000	--	0.23	U	0.28	U	0.24	U
Toluene	mg/kg	0.042	45000	466.2808173	140000	--	0.0063	U	0.0076	U	0.0062	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1D-Industrial**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-21-72-515 08/09/2012 Field Sample
<b>Metals</b>							
Aluminum	mg/kg	26130	990000		3000000	--	<b>8710</b>
Antimony	mg/kg	2.25	410	81.76	1200	--	<b>0.75</b>
Arsenic	mg/kg	17.1	1.6	11.5	160	--	<b>5.7</b>
Barium	mg/kg	1584	190000	14308	570000	--	<b>528</b>
Beryllium	mg/kg	3	2000	408.8	6000	--	<b>1</b>
Cadmium	mg/kg	0.63	800	100.8685353	2400	--	<b>0.21</b>
Calcium	mg/kg	22380				--	<b>7460</b>
Chromium	mg/kg	37.5				--	<b>12.5</b>
Cobalt	mg/kg	24.6	300	12264	910	--	<b>8.2</b>
Copper	mg/kg	77.1	41000	8176	120000	--	<b>25.7</b>
Iron	mg/kg	63600	720000		2100000	--	<b>21200</b>
Lead	mg/kg	91.2	800	1400	800	--	<b>30.4</b>
Magnesium	mg/kg	11760				--	<b>3920</b>
Manganese	mg/kg	2523	23000			--	<b>841</b>
Mercury	mg/kg	0.096	43		130	--	<b>0.032</b>
Nickel	mg/kg	67.2	20000	4088	59000	--	<b>22.4</b>
Potassium	mg/kg	3630				--	<b>1210</b>
Selenium	mg/kg	8.1	5100	1022	15000	--	<b>2.7</b>
Silver	mg/kg	2.58	5100	1022	15000	--	<b>0.86</b>
Sodium	mg/kg	3060				--	<b>1020</b>
Thallium	mg/kg	6.6	10	14.308	31	--	<b>2.2</b>
Vanadium	mg/kg	81		1430.8		--	<b>27</b>
Zinc	mg/kg	199.5	310000	61320	920000	--	<b>66.5</b>
<b>Organic</b>							
1,1'-Biphenyl	mg/kg	1.17	210	231.7845284	640	--	<b>0.39</b>
2-Butanone	mg/kg	0.108	200000	4351.295519	590000	--	<b>0.036</b>
2-Methylnaphthalene	mg/kg	1.17	2200	165.2673834	6600	--	<b>0.39</b>
Acenaphthene	mg/kg	1.17	33000	6124.439919	99000	--	<b>0.39</b>
Acetone	mg/kg	0.36	630000	1394.143988	1900000	--	<b>0.12</b>
Acetophenone	mg/kg	1.17	100000		310000	--	<b>0.39</b>
alpha-Chlordane	mg/kg	0.0117				--	<b>0.0039</b>
Anthracene	mg/kg	1.17	170000	47808.42095	500000	--	<b>0.39</b>
Aroclor-1254	mg/kg	0.231	0.74		32	--	<b>0.077</b>
Aroclor-1260	mg/kg	0.231	0.74		74	--	<b>0.077</b>
Benzene	mg/kg	0.042	5.4	3.083911025	540	--	<b>0.014</b>
Benzo(a)anthracene	mg/kg	1.17	2.1	2.868199367	210	--	<b>0.39</b>
Benzo(a)pyrene	mg/kg	1.17	0.21	0.33	21	--	<b>0.39</b>
Benzo(b)fluoranthene	mg/kg	1.17	2.1	2.868329304	210	--	<b>0.39</b>



**Table 1D-Industrial**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-21-72-515 08/09/2012 Field Sample
Benzo(g,h,i)perylene	mg/kg	1.17				--	0.39 U
Benzo(k)fluoranthene	mg/kg	1.17	21	28.79427687	2100	--	0.39 U
Bis(2-ethylhexyl)phthalate	mg/kg	1.17	120	173.0325248	12000	--	0.39 U
Carbazole	mg/kg	1.17				--	0.39 U
Carbon disulfide	mg/kg	0.042	3700	250.6974251	11000	--	0.014 U
Chrysene	mg/kg	1.17	210	285.5245365	21000	--	0.39 U
Cyclohexane	mg/kg	0.042	29000		88000	--	0.014 U
Dibenzo(a,h)anthracene	mg/kg	1.17	0.21	0.33	21	--	0.39 U
Dibenzofuran	mg/kg	1.17	1000	151.6010855	3100	--	0.39 U
Di-n-butylphthalate	mg/kg	1.17	62000		180000	--	0.39 U
Endosulfan sulfate	mg/kg	0.0231				--	0.0077 U
Ethylbenzene	mg/kg	0.042	27	232.5016836	2700	--	0.014 U
Fluoranthene	mg/kg	1.17	22000	2885.39429	66000	--	0.39 U
Fluorene	mg/kg	1.17	22000	5407.219769	66000	--	0.39 U
Indeno(1,2,3-cd)pyrene	mg/kg	1.17	2.1	2.882233474	210	--	0.39 U
Isopropylbenzene	mg/kg	0.042	11000		32000	--	0.014 U
m,p-Xylene	mg/kg	0.042				--	0.014 U
Methyl acetate	mg/kg	0.042	1000000		3100000	--	0.014 U
Methylcyclohexane	mg/kg	0.042				--	0.014 U
Naphthalene	mg/kg	1.17	18	42.59771533	1800	--	0.39 U
o-Xylene	mg/kg	0.042	3000		9000	--	0.014 U
Phenanthrene	mg/kg	1.17		42533.41269		--	0.39 U
Phenol	mg/kg	1.17	180000	14532.1499	550000	--	0.39 U
Pyrene	mg/kg	1.17	17000	5606.69618	50000	--	0.39 U
Toluene	mg/kg	0.042	45000	466.2808173	140000	--	0.014 U

- Concentration 3x above background
- Concentrtn above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1D-Residential**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs	LA RECAP Residential Soil	EPA RMIs	Sample ID Date	DSE-04-72-515 08/06/2012	DSE-05-72-515 08/08/2012	DSE-06-72-515 08/07/2012	DSE-07-72-515 08/06/2012	DSE-08-72-515 08/07/2012
<b>Metals</b>											
Aluminum	mg/kg	26130	77000		230000	--	19200	6410	12200	22900	17200
Antimony	mg/kg	2.25	31	3.128571429	94	--	1.9	11.4	J-	4.1	2.4
Arsenic	mg/kg	17.1	0.39	11.5	39	--	12.4	30.9	20.1	J	11.1
Barium	mg/kg	1584	15000	547.5	46000	--	2970	7000	11000	J	301
Beryllium	mg/kg	3	160	15.64285714	470	--	1.3	0.58	0.83		1.4
Cadmium	mg/kg	0.63	70	3.89979486	210	--	0.31	6.8	J+	1.9	0.11
Calcium	mg/kg	22380				--	14700	19600	13900	J	10800
Chromium	mg/kg	37.5				--	22.8	393	65.3		22.8
Cobalt	mg/kg	24.6	23	469.2857143	70	--	12.6	5.6	J	10.9	20.9
Copper	mg/kg	77.1	3100	312.8571429	9400	--	26	79.6	115		23.3
Iron	mg/kg	63600	55000		160000	--	23100	21500	25200	J	65700
Lead	mg/kg	91.2	400	400	400	--	52.6	J	931	280	32.4
Magnesium	mg/kg	11760				--	6160	3630	4270	J	7520
Manganese	mg/kg	2523	1800			--	343	703	521	J	4530
Mercury	mg/kg	0.096	10		30	--	0.061	1.6		0.38	0.04
Nickel	mg/kg	67.2	1500	156.4285714	4600	--	30	22.4	J	31.5	39
Potassium	mg/kg	3630				--	2530	1360	2000		3130
Selenium	mg/kg	8.1	390	39.10714286	1200	--	2	U	2.6	U	2
Silver	mg/kg	2.58	390	39.10714286	1200	--	0.19	U	4.9		1
Sodium	mg/kg	3060				--	1300	2280	1570		1330
Thallium	mg/kg	6.6	0.78	0.5475	2.3	--	2.7	U	0.52	U	2.7
Vanadium	mg/kg	81		54.75		--	41.8	18.1		29.6	53.9
Zinc	mg/kg	199.5	23000	2346.428571	70000	--	109	J	1070	511	J
<b>Organic</b>											
1,1'-Biphenyl	mg/kg	1.17	51	231.7845284	150	--	0.27	U	11	J	0.55
2-Butanone	mg/kg	0.108	28000	590.9671771	84000	--	0.026		3.8	U	0.024
2-Methylnaphthalene	mg/kg	1.17	230	22.15593188	690	--	0.27	U	200	J	41
Acenaphthene	mg/kg	1.17	3400	373.6479476	10000	--	0.27	U	5.4	UJ	0.97
Acetone	mg/kg	0.36	61000	174.2704067	180000	--	0.11		3.8	U	0.12
Acetophenone	mg/kg	1.17	7800		23000	--	0.11	U	5.4	UJ	0.79
alpha-Chlordane	mg/kg	0.0117				--	0.0026	U	0.0025	U	0.0034
Anthracene	mg/kg	1.17	17000	2188.505596	52000	--	0.27	U	2.2	U	1.5
Aroclor-1254	mg/kg	0.231	0.22		3.4	--	0.051	U	0.049	U	0.067
Aroclor-1260	mg/kg	0.231	0.22		22	--	0.051	U	0.049	U	0.075
Benzene	mg/kg	0.042	1.1	1.486209861	110	--	0.0064	U	1.1	U	0.012
Benzo(a)anthracene	mg/kg	1.17	0.15	0.620205398	15	--	0.27	U	5.4	UJ	0.34
Benzo(a)pyrene	mg/kg	1.17	0.015	0.33	1.5	--	0.27	U	5.4	UJ	0.33
Benzo(b)fluoranthene	mg/kg	1.17	0.15	0.620217342	15	--	0.27	U	5.4	UJ	0.39
Benzo(g,h,i)perylene	mg/kg	1.17				--	0.27	U	5.4	Jv	0.46



**Table 1D-Residential**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-72-515 08/06/2012 Field Sample	DSE-05-72-515 08/08/2012 Field Sample	DSE-06-72-515 08/07/2012 Field Sample	DSE-07-72-515 08/06/2012 Field Sample	DSE-08-72-515 08/07/2012 Field Sample	
Benzo(k)fluoranthene	mg/kg	1.17	1.5	6.21235289	150	--	0.27	U	5.4	UJ	0.3	LJv
Bis(2-ethylhexyl)phthalate	mg/kg	1.17	35	34.51630075	3500	--	0.27	U	5.4	UJ	0.19	LJv
Carbazole	mg/kg	1.17				--	0.27	U	5.4	UJ	0.84	
Carbon disulfide	mg/kg	0.042	820	36.27397069	2500	--	0.0064	U	1.9	U	0.012	U
Chrysene	mg/kg	1.17	15	61.90114483	1500	--	0.27	U	5.4	UJ	0.61	
Cyclohexane	mg/kg	0.042	7000		21000	--	0.0064	U	1.1	LJ	0.012	U
Dibenz(a,h)anthracene	mg/kg	1.17	0.015	0.33	1.5	--	0.27	U	5.4	UJ	0.11	LJv
Dibenzofuran	mg/kg	1.17	78	29.31718855	230	--	0.27	U	9.4	J	0.6	
Di-n-butylphthalate	mg/kg	1.17	6100		18000	--	0.27	U	5.4	UJ	0.35	UR
Endosulfan sulfate	mg/kg	0.0231				--	0.0051	U	0.0049	U	0.0067	U
Ethylbenzene	mg/kg	0.042	5.4	163.6661254	540	--	0.0064	U	1.9	U	0.0049	LJ
Fluoranthene	mg/kg	1.17	2300	224.4277443	6900	--	0.27	U	5.4	UJ	0.62	
Fluorene	mg/kg	1.17	2300	276.6833948	6900	--	0.27	U	22	J	1.3	
Indeno(1,2,3-cd)pyrene	mg/kg	1.17	0.15	0.621491921	15	--	0.27	U	5.4	UJ	0.26	LJv
Isopropylbenzene	mg/kg	0.042	2100		6200	--	0.0064	U	2.8		0.0081	LJ
m,p-Xylene	mg/kg	0.042				--	0.0064	U	38		0.0063	LJ
Methyl acetate	mg/kg	0.042	78000		230000	--	0.0064	U	2		0.012	U
Methylcyclohexane	mg/kg	0.042				--	0.0064	U	6.2		0.0062	LJ
Naphthalene	mg/kg	1.17	3.6	6.19574424	360	--	0.27	U	76	J	11	
o-Xylene	mg/kg	0.042	690		2100	--	0.0064	U	17		0.0098	LJ
Phenanthrene	mg/kg	1.17		2108.62766		--	0.27	U	24	J	3.9	
Phenol	mg/kg	1.17	18000	1287.794675	55000	--	0.27	U	5.4	UJ	0.35	U
Pyrene	mg/kg	1.17	1700	229.1608461	5200	--	0.27	U	2.5	LJ	0.96	
Toluene	mg/kg	0.042	5000	67.63078972	15000	--	0.0064	U	7.2		0.012	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1D-Residential**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMIs Residential Soil	Sample ID Date Sample Type	DSE-10-72-515 08/06/2012 Field Sample	DSE-13-72-515 08/07/2012 Field Sample	DSE-14-72-515 08/09/2012 Field Sample	DSE-16-72-515 08/07/2012 Field Sample	DSE-20-72-515 08/08/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	26130	77000		230000	--	7760	22900	8830	20900		20300
Antimony	mg/kg	2.25	31	3.128571429	94	--	11.9	J-	2.5	J-	0.88	J-
Arsenic	mg/kg	17.1	0.39	11.5	39	--	46.9		8.1	J	7.1	
Barium	mg/kg	1584	15000	547.5	46000	--	7020		426	J	2790	J-
Beryllium	mg/kg	3	160	15.64285714	470	--	0.62	J+	1.1		0.74	
Cadmium	mg/kg	0.63	70	3.89979486	210	--	4.5		1		0.45	J
Calcium	mg/kg	22380				--	7390		13000	J	4720	
Chromium	mg/kg	37.5				--	24.3		22.3		17.9	
Cobalt	mg/kg	24.6	23	469.2857143	70	--	8.9		22.4		8.3	
Copper	mg/kg	77.1	3100	312.8571429	9400	--	54.7		16		22	J
Iron	mg/kg	63600	55000		160000	--	21200		80800	J	17000	
Lead	mg/kg	91.2	400	400	400	--	741	J	41.7		50.3	
Magnesium	mg/kg	11760				--	3590		7090	J	4160	
Manganese	mg/kg	2523	1800			--	479		2430	J	387	J
Mercury	mg/kg	0.096	10		30	--	1.4		0.038	J	0.16	
Nickel	mg/kg	67.2	1500	156.4285714	4600	--	21.3		37.7		25.9	
Potassium	mg/kg	3630				--	1260		3140		1490	
Selenium	mg/kg	8.1	390	39.10714286	1200	--	1.6	J	3.3	J	2.4	J
Silver	mg/kg	2.58	390	39.10714286	1200	--	2.8		0.79	J	0.15	J
Sodium	mg/kg	3060				--	581		1400		708	
Thallium	mg/kg	6.6	0.78	0.5475	2.3	--	2.5	U	0.57	J	2.7	UJ
Vanadium	mg/kg	81		54.75		--	21		48.8		23.9	
Zinc	mg/kg	199.5	23000	2346.428571	70000	--	684	J	95.5	J	107	J-
<b>Organic</b>												
1,1'-Biphenyl	mg/kg	1.17	51	231.7845284	150	--	0.23	U	0.28	U	0.24	U
2-Butanone	mg/kg	0.108	28000	590.9671771	84000	--	0.019		0.015	U	0.012	U
2-Methylnaphthalene	mg/kg	1.17	230	22.15593188	690	--	3.1		0.28	U	0.24	U
Acenaphthene	mg/kg	1.17	3400	373.6479476	10000	--	0.23	U	0.28	U	0.24	U
Acetone	mg/kg	0.36	61000	174.2704067	180000	--	0.026		0.031		0.012	U
Acetophenone	mg/kg	1.17	7800		23000	--	0.23	U	0.17	J	0.24	U
alpha-Chlordane	mg/kg	0.0117				--	0.0023	U	0.0014	J	0.0024	U
Anthracene	mg/kg	1.17	17000	2188.505596	52000	--	0.2	J	0.28	U	0.24	U
Aroclor-1254	mg/kg	0.231	0.22		3.4	--	0.035	J	0.054	U	0.047	U
Aroclor-1260	mg/kg	0.231	0.22		22	--	0.045	U	0.054	U	0.047	U
Benzene	mg/kg	0.042	1.1	1.486209861	110	--	0.0063	U	0.0076	U	0.0062	U
Benzo(a)anthracene	mg/kg	1.17	0.15	0.620205398	15	--	0.23	U	0.28	U	0.24	U
Benzo(a)pyrene	mg/kg	1.17	0.015	0.33	1.5	--	0.23	U	0.28	U	0.24	U
Benzo(b)fluoranthene	mg/kg	1.17	0.15	0.620217342	15	--	0.23	U	0.28	U	0.24	U
Benzo(g,h,i)perylene	mg/kg	1.17				--	0.23	U	0.28	U	0.24	U



**Table 1D-Residential**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-72-515 08/06/2012 Field Sample	DSE-13-72-515 08/07/2012 Field Sample	DSE-14-72-515 08/09/2012 Field Sample	DSE-16-72-515 08/07/2012 Field Sample	DSE-20-72-515 08/08/2012 Field Sample	
Benzo(k)fluoranthene	mg/kg	1.17	1.5	6.21235289	150	--	0.23	U	0.28	U	0.24	U
Bis(2-ethylhexyl)phthalate	mg/kg	1.17	35	34.51630075	3500	--	0.23	U	0.28	U	0.24	U
Carbazole	mg/kg	1.17				--	0.23	U	0.28	U	0.24	U
Carbon disulfide	mg/kg	0.042	820	36.27397069	2500	--	0.0063	U	0.0076	U	0.0062	U
Chrysene	mg/kg	1.17	15	61.90114483	1500	--	0.23	U	0.28	U	0.24	U
Cyclohexane	mg/kg	0.042	7000		21000	--	<b>0.0027</b>	U	0.0076	U	0.0062	U
Dibenz(a,h)anthracene	mg/kg	1.17	0.015	0.33	1.5	--	0.23	U	0.28	U	0.24	U
Dibenzofuran	mg/kg	1.17	78	29.31718855	230	--	0.23	U	0.28	U	0.24	U
Di-n-butylphthalate	mg/kg	1.17	6100		18000	--	0.23	U	<b>0.074</b>	U	<b>0.048</b>	U
Endosulfan sulfate	mg/kg	0.0231				--	0.0045	U	0.0053	U	0.0047	U
Ethylbenzene	mg/kg	0.042	5.4	163.6661254	540	--	0.0063	U	0.0076	U	0.0062	U
Fluoranthene	mg/kg	1.17	2300	224.4277443	6900	--	0.23	U	0.28	U	0.24	U
Fluorene	mg/kg	1.17	2300	276.6833948	6900	--	0.23	U	0.28	U	0.24	U
Indeno(1,2,3-cd)pyrene	mg/kg	1.17	0.15	0.621491921	15	--	0.23	U	0.28	U	0.24	U
Isopropylbenzene	mg/kg	0.042	2100		6200	--	<b>0.0059</b>	U	0.0076	U	0.0062	U
m,p-Xylene	mg/kg	0.042				--	0.0063	U	0.0076	U	0.0062	U
Methyl acetate	mg/kg	0.042	78000		230000	--	0.0063	U	0.0076	U	0.0062	U
Methylcyclohexane	mg/kg	0.042				--	<b>0.016</b>	J^	0.0076	U	0.0062	U
Naphthalene	mg/kg	1.17	3.6	6.19574424	360	--	0.23	U	0.28	U	0.24	U
o-Xylene	mg/kg	0.042	690		2100	--	0.0063	U	0.0076	U	0.0062	U
Phenanthrene	mg/kg	1.17		2108.62766		--	<b>2</b>		0.28	U	0.24	U
Phenol	mg/kg	1.17	18000	1287.794675	55000	--	0.23	U	<b>0.084</b>	U	0.24	U
Pyrene	mg/kg	1.17	1700	229.1608461	5200	--	0.23	U	0.28	U	0.24	U
Toluene	mg/kg	0.042	5000	67.63078972	15000	--	0.0063	U	0.0076	U	0.0062	U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1D-Residential**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-21-72-515 08/09/2012 Field Sample
<b>Metals</b>							
Aluminum	mg/kg	26130	77000		230000	--	<b>8710</b>
Antimony	mg/kg	2.25	31	3.128571429	94	--	<b>0.75</b> UJ-
Arsenic	mg/kg	17.1	0.39	11.5	39	--	<b>5.7</b>
Barium	mg/kg	1584	15000	547.5	46000	--	<b>528</b> J-
Beryllium	mg/kg	3	160	15.64285714	470	--	<b>1</b>
Cadmium	mg/kg	0.63	70	3.89979486	210	--	<b>0.21</b> U
Calcium	mg/kg	22380				--	<b>7460</b>
Chromium	mg/kg	37.5				--	<b>12.5</b>
Cobalt	mg/kg	24.6	23	469.2857143	70	--	<b>8.2</b>
Copper	mg/kg	77.1	3100	312.8571429	9400	--	<b>25.7</b> J
Iron	mg/kg	63600	55000		160000	--	<b>21200</b>
Lead	mg/kg	91.2	400	400	400	--	<b>30.4</b>
Magnesium	mg/kg	11760				--	<b>3920</b>
Manganese	mg/kg	2523	1800			--	<b>841</b> J
Mercury	mg/kg	0.096	10		30	--	<b>0.032</b> U
Nickel	mg/kg	67.2	1500	156.4285714	4600	--	<b>22.4</b>
Potassium	mg/kg	3630				--	<b>1210</b>
Selenium	mg/kg	8.1	390	39.10714286	1200	--	<b>2.7</b> U
Silver	mg/kg	2.58	390	39.10714286	1200	--	<b>0.86</b> U
Sodium	mg/kg	3060				--	<b>1020</b>
Thallium	mg/kg	6.6	0.78	0.5475	2.3	--	<b>2.2</b> UJ
Vanadium	mg/kg	81		54.75		--	<b>27</b>
Zinc	mg/kg	199.5	23000	2346.428571	70000	--	<b>66.5</b> J-
<b>Organic</b>							
1,1'-Biphenyl	mg/kg	1.17	51	231.7845284	150	--	<b>0.39</b> U
2-Butanone	mg/kg	0.108	28000	590.9671771	84000	--	<b>0.036</b>
2-Methylnaphthalene	mg/kg	1.17	230	22.15593188	690	--	<b>0.39</b> U
Acenaphthene	mg/kg	1.17	3400	373.6479476	10000	--	<b>0.39</b> U
Acetone	mg/kg	0.36	61000	174.2704067	180000	--	<b>0.12</b>
Acetophenone	mg/kg	1.17	7800		23000	--	<b>0.39</b> U
alpha-Chlordane	mg/kg	0.0117				--	<b>0.0039</b> U
Anthracene	mg/kg	1.17	17000	2188.505596	52000	--	<b>0.39</b> U
Aroclor-1254	mg/kg	0.231	0.22		3.4	--	<b>0.077</b> U
Aroclor-1260	mg/kg	0.231	0.22		22	--	<b>0.077</b> U
Benzene	mg/kg	0.042	1.1	1.486209861	110	--	<b>0.014</b> U
Benzo(a)anthracene	mg/kg	1.17	0.15	0.620205398	15	--	<b>0.39</b> U
Benzo(a)pyrene	mg/kg	1.17	0.015	0.33	1.5	--	<b>0.39</b> U
Benzo(b)fluoranthene	mg/kg	1.17	0.15	0.620217342	15	--	<b>0.39</b> U
Benzo(g,h,i)perylene	mg/kg	1.17				--	<b>0.39</b> U



**Table 1D-Residential**  
**Soil Sample Analytical Results Summary at 72 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-21-72-515 08/09/2012 Field Sample
Benzo(k)fluoranthene	mg/kg	1.17	1.5	6.21235289	150	--	0.39 U
Bis(2-ethylhexyl)phthalate	mg/kg	1.17	35	34.51630075	3500	--	0.39 U
Carbazole	mg/kg	1.17				--	0.39 U
Carbon disulfide	mg/kg	0.042	820	36.27397069	2500	--	0.014 U
Chrysene	mg/kg	1.17	15	61.90114483	1500	--	0.39 U
Cyclohexane	mg/kg	0.042	7000		21000	--	0.014 U
Dibenzo(a,h)anthracene	mg/kg	1.17	0.015	0.33	1.5	--	0.39 U
Dibenzofuran	mg/kg	1.17	78	29.31718855	230	--	0.39 U
Di-n-butylphthalate	mg/kg	1.17	6100		18000	--	0.39 U
Endosulfan sulfate	mg/kg	0.0231				--	0.0077 U
Ethylbenzene	mg/kg	0.042	5.4	163.6661254	540	--	0.014 U
Fluoranthene	mg/kg	1.17	2300	224.4277443	6900	--	0.39 U
Fluorene	mg/kg	1.17	2300	276.6833948	6900	--	0.39 U
Indeno(1,2,3-cd)pyrene	mg/kg	1.17	0.15	0.621491921	15	--	0.39 U
Isopropylbenzene	mg/kg	0.042	2100		6200	--	0.014 U
m,p-Xylene	mg/kg	0.042				--	0.014 U
Methyl acetate	mg/kg	0.042	78000		230000	--	0.014 U
Methylcyclohexane	mg/kg	0.042				--	0.014 U
Naphthalene	mg/kg	1.17	3.6	6.19574424	360	--	0.39 U
o-Xylene	mg/kg	0.042	690		2100	--	0.014 U
Phenanthrene	mg/kg	1.17		2108.62766		--	0.39 U
Phenol	mg/kg	1.17	18000	1287.794675	55000	--	0.39 U
Pyrene	mg/kg	1.17	1700	229.1608461	5200	--	0.39 U
Toluene	mg/kg	0.042	5000	67.63078972	15000	--	0.014 U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1E-Industrial**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-96-515 08/06/2012 Field Sample	DSE-05-96-515 08/08/2012 Field Sample	DSE-06-96-515 08/07/2012 Field Sample	DSE-07-96-515 08/06/2012 Field Sample	DSE-08-96-515 08/07/2012 Field Sample
<b>Metals</b>											
Aluminum	mg/kg	30900	990000		3000000	--	27300	12700	22200	23000	23800
Antimony	mg/kg	2.28	410	81.76	1200	--	1.5 U-	1.1 U-	1.5 U-	1.7 U-	1.4 U-
Arsenic	mg/kg	22.8	1.6	11.5	160	--	8.4	9.2	5.9 J	6	9.6 J
Barium	mg/kg	702	190000	14308	570000	--	385	4330	428 J	314	326 J
Beryllium	mg/kg	3.6	2000	408.8	6000	--	1.7	1.1	1.2	1.6	1.4
Cadmium	mg/kg	0.57	800	100.8685353	2400	--	0.14 U	0.24 U+	0.23 U	0.05 U	0.37 U
Calcium	mg/kg	20940			--		7560	7140	6440 J	6770	6910 J
Chromium	mg/kg	42			--		28	24.5	19.9	23.2	26.3
Cobalt	mg/kg	38.7	300	12264	910	--	20.5	8 J	11.5	16.9	9.2
Copper	mg/kg	84	41000	8176	120000	--	36.4	22.9	24.1	25.2	28.8
Iron	mg/kg	59700	720000		2100000	--	34200	18500	24400 J	29800	21000 J
Lead	mg/kg	76.2	800	1400	800	--	32.5 J	52.3	27.3	26.8 J	30.7
Magnesium	mg/kg	15630			--		9110	5180	6460 J	7550	6770 J
Manganese	mg/kg	687	23000		--		260	304	232 J	366	218 J
Mercury	mg/kg	0.168	43		130	--	0.028 U	0.083 U	0.049 U	0.04 U	0.042 U
Nickel	mg/kg	113.1	20000	4088	59000	--	46.6	27 J	31.1	37.7	36.9
Potassium	mg/kg	4530			--		3840	2130	3070	3530	3560
Selenium	mg/kg	9.3	5100	1022	15000	--	2.7 U	2.6 U	2.6 U	3.1 U	1.8 U
Silver	mg/kg	2.76	5100	1022	15000	--	0.25 U	0.22 U	1.2 U	0.23 U	0.95 U
Sodium	mg/kg	4920			--		1820	4820	2560	1740	2270
Vanadium	mg/kg	95.1		1430.8		--	54.2	30.6	46.8	58	43.9
Zinc	mg/kg	207	310000	61320	920000	--	114 J	97.1	82.5 J	99.8 J	108 J
<b>Organic</b>											
2-Butanone	mg/kg	0.033	200000	4351.295519	590000	--	0.02	0.049	0.017 U	0.057	0.076
2-Methylnaphthalene	mg/kg	0.96	2200	165.2673834	6600	--	0.31 U	1.3	0.6	0.37 U	0.35 U
Acenaphthene	mg/kg	0.96	33000	6124.439919	99000	--	0.31 U	0.3 U	0.21 U	0.37 U	0.35 U
Acetone	mg/kg	0.153	630000	1394.143988	1900000	--	0.12	0.27	0.1	0.27	0.55
Acetophenone	mg/kg	0.96	100000		310000	--	0.17 U	0.3 U	0.28 U	0.11 U	0.35 U
alpha-Chlordane	mg/kg	0.0096			--		0.0032 U	0.003 UJv	0.0027 U	0.0037 U	0.0035 U
Anthracene	mg/kg	0.96	170000	47808.42095	500000	--	0.31 U	0.082 U	0.065 U	0.37 U	0.35 U
beta-BHC	mg/kg	0.0096	0.96	1.622748383	96	--	0.0032 U	0.003 UJv	0.0027 U	0.0037 U	0.0035 U
Bis(2-ethylhexyl)phthalate	mg/kg	0.96	120	173.0325248	12000	--	0.31 U	0.3 UJv	0.28 U	0.37 UJv	0.13 Uv
Chrysene	mg/kg	0.96	210	285.5245365	21000	--	0.31 U	0.3 U	0.078 U	0.37 UJv	0.35 U
delta-BHC	mg/kg	0.0096			--		0.0032 U	0.003 UJv	0.0027 U	0.0037 U	0.0035 U
Di-n-butylphthalate	mg/kg	0.96	62000		180000	--	0.31 U	0.072 Uv	0.087 U	0.09 Uv	0.11 Uv
Fluorene	mg/kg	0.96	22000	5407.219769	66000	--	0.31 U	0.2 U	0.21 U	0.37 UJv	0.1 U
Isopropylbenzene	mg/kg	0.0273	11000		32000	--	0.0084 U	0.012 U	0.0036 U	0.0098 U	0.012 U
Napht a ene	mg/kg	0.96	18	42.59771533	1800	--	0.31 U	0.15 U	0.28 U	0.37 U	0.35 U



**Table 1E-Industrial**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-04-96-515 08/06/2012 Field Sample	DSE-05-96-515 08/08/2012 Field Sample	DSE-06-96-515 08/07/2012 Field Sample	DSE-07-96-515 08/06/2012 Field Sample	DSE-08-96-515 08/07/2012 Field Sample
Phenanthrene	mg/kg	0.96		42533.41269		--	0.31 U	0.46	0.5	0.37 U	0.29 U
Phenol	mg/kg	0.96	180000	14532.1499	550000	--	0.077 U	0.3 U	0.28 U	0.37 U	0.35 U
Pyrene	mg/kg	0.96	17000	5606.69618	50000	--	0.31 U	0.077 U	0.071 U	0.37 UJv	0.35 U

- Concentration 3x above background
- Concentration above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1E-Industrial**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-96-515 08/06/2012 Field Sample	DSE-13-96-515 08/07/2012 Field Sample	DSE-14-96-515 08/09/2012 Field Sample	DSE-16-96-515 08/07/2012 Field Sample	DSE-20-96-515 08/08/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	30900	990000		3000000	--	6520		18900		8910	
Antimony	mg/kg	2.28	410	81.76	1200	--	7.1	J-	1.5	LJ-	0.47	LJ-
Arsenic	mg/kg	22.8	1.6	11.5	160	--	26		6.9		8.7	
Barium	mg/kg	702	190000	14308	570000	--	7130		204		169	J-
Beryllium	mg/kg	3.6	2000	408.8	6000	--	0.54	J+	0.99		0.98	
Cadmium	mg/kg	0.57	800	100.8685353	2400	--	4.9		0.6	U	0.07	LJ
Calcium	mg/kg	20940				--	9030		6250		5530	
Chromium	mg/kg	42				--	17		18.1		13.2	
Cobalt	mg/kg	38.7	300	12264	910	--	6.6		12.8		7.7	
Copper	mg/kg	84	41000	8176	120000	--	43.3		17.6		23.6	J
Iron	mg/kg	59700	720000		2100000	--	18800		29700		15600	
Lead	mg/kg	76.2	800	1400	800	--	799	J	22.1	J	19.6	
Magnesium	mg/kg	15630				--	3720		6630		4430	
Manganese	mg/kg	687	23000			--	468		597		166	J
Mercury	mg/kg	0.168	43		130	--	0.86		0.03	U	0.031	LJ
Nickel	mg/kg	113.1	20000	4088	59000	--	16.7		32		23.8	
Potassium	mg/kg	4530				--	1090		3100		1700	
Selenium	mg/kg	9.3	5100	1022	15000	--	1.4	LJ	2.6	LJ	2.7	LJ
Silver	mg/kg	2.76	5100	1022	15000	--	3		0.3	U	1.4	U
Sodium	mg/kg	4920				--	593		1450		1290	
Vanadium	mg/kg	95.1		1430.8		--	19.6		42.8		29.8	
Zinc	mg/kg	207	310000	61320	920000	--	734	J	82	J	57.7	J-
<b>Organic</b>												
2-Butanone	mg/kg	0.033	200000	4351.295519	590000	--	0.013	LJ	0.014	U	0.027	
2-Methylnaphthalene	mg/kg	0.96	2200	165.2673834	6600	--	0.42		0.28	U	0.29	U
Acenaphthene	mg/kg	0.96	33000	6124.439919	99000	--	0.26	U	0.28	U	0.29	U
Acetone	mg/kg	0.153	630000	1394.143988	1900000	--	0.058		0.066		0.095	
Acetophenone	mg/kg	0.96	100000		310000	--	0.26	U	0.28	U	0.29	U
alpha-Chlordane	mg/kg	0.0096				--	0.0025	U	0.0028	U	0.0029	U
Anthracene	mg/kg	0.96	170000	47808.42095	500000	--	0.26	U	0.28	U	0.29	U
beta-BHC	mg/kg	0.0096	0.96	1.622748383	96	--	0.0025	U	0.0028	U	0.0029	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.96	120	173.0325248	12000	--	0.26	U	0.28	U	0.29	U
Chrysene	mg/kg	0.96	210	285.5245365	21000	--	0.26	U	0.28	U	0.29	U
delta-BHC	mg/kg	0.0096				--	0.0025	U	0.0028	U	0.0029	U
Di-n-butylphthalate	mg/kg	0.96	62000		180000	--	0.095	LJ	0.062	U	0.06	LJ
Fluorene	mg/kg	0.96	22000	5407.219769	66000	--	0.26	U	0.28	U	0.29	U
Isopropylbenzene	mg/kg	0.0273	11000		32000	--	0.0066	U	0.0095	U	0.0089	U
Naphthalene	mg/kg	0.96	18	42.59771533	1800	--	0.26	U	0.28	U	0.29	U



**Table 1E-Industrial**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-10-96-515 08/06/2012 Field Sample	DSE-13-96-515 08/07/2012 Field Sample	DSE-14-96-515 08/09/2012 Field Sample	DSE-16-96-515 08/07/2012 Field Sample	DSE-20-96-515 08/08/2012 Field Sample	
Phenanthrene	mg/kg	0.96		42533.41269		--	0.23	U	0.28	U	0.29	U
Phenol	mg/kg	0.96	180000	14532.1499	550000	--	0.26	U	0.28	U	0.29	U
Pyrene	mg/kg	0.96	17000	5606.69618	50000	--	0.26	U	0.28	U	0.29	U
- Concentration 3x above background - Concentration above EPA RSL and 3x background - Concentration above RECAP and 3x background - Concentration above EPA RSLs, RECAP, and 3x background - Concentration above EPA RMLs and 3x background - Concentration above EPA RMLs, RECAP, and 3x background - Concentration above EPA RMLs, RSLs, and 3x background - Concentration above EPA RMLs, RSLs, RECAP, and 3x background												



**Table 1E-Industrial**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-20-96-525 08/08/2012 Field Duplicate	DSE-21-96-515 08/09/2012 Field Sample
<b>Metals</b>								
Aluminum	mg/kg	30900	990000		3000000	--	14400	
Antimony	mg/kg	2.28	410	81.76	1200	--	0.66	LJ-
Arsenic	mg/kg	22.8	1.6	11.5	160	--	8	
Barium	mg/kg	702	190000	14308	570000	--	279	
Beryllium	mg/kg	3.6	2000	408.8	6000	--	1.2	
Cadmium	mg/kg	0.57	800	100.8685353	2400	--	0.66	U
Calcium	mg/kg	20940				--	6220	
Chromium	mg/kg	42				--	18.5	
Cobalt	mg/kg	38.7	300	12264	910	--	14.3	J
Copper	mg/kg	84	41000	8176	120000	--	25.1	
Iron	mg/kg	59700	720000		2100000	--	19200	
Lead	mg/kg	76.2	800	1400	800	--	25	
Magnesium	mg/kg	15630				--	5820	
Manganese	mg/kg	687	23000			--	191	
Mercury	mg/kg	0.168	43		130	--	0.052	LJ
Nickel	mg/kg	113.1	20000	4088	59000	--	37.8	J
Potassium	mg/kg	4530				--	2380	
Selenium	mg/kg	9.3	5100	1022	15000	--	3.1	LJ
Silver	mg/kg	2.76	5100	1022	15000	--	1.3	U
Sodium	mg/kg	4920				--	1180	
Vanadium	mg/kg	95.1		1430.8		--	35.2	
Zinc	mg/kg	207	310000	61320	920000	--	82.1	
<b>Organic</b>								
2-Butanone	mg/kg	0.033	200000	4351.295519	590000	--	0.034	J^
2-MethylNaphthalene	mg/kg	0.96	2200	165.2673834	6600	--	0.26	U
Acenaphthene	mg/kg	0.96	33000	6124.439919	99000	--	0.26	U
Acetone	mg/kg	0.153	630000	1394.143988	1900000	--	0.017	U
Acetophenone	mg/kg	0.96	100000		310000	--	0.26	U
alpha-Chlordane	mg/kg	0.0096				--	0.0026	U
Anthracene	mg/kg	0.96	170000	47808.42095	500000	--	0.26	U
beta-BHC	mg/kg	0.0096	0.96	1.622748383	96	--	0.0026	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.96	120	173.0325248	12000	--	0.092	LJv
Chrysene	mg/kg	0.96	210	285.5245365	21000	--	0.26	UJv
delta-BHC	mg/kg	0.0096				--	0.0026	U
Di-n-butylphthalate	mg/kg	0.96	62000		180000	--	0.075	LJv
Fluorene	mg/kg	0.96	22000	5407.219769	66000	--	0.26	UJv
Isopropylbenzene	mg/kg	0.0273	11000		32000	--	0.0086	U
Naphthalene	mg/kg	0.96	18	42.59771533	1800	--	0.26	U
							0.32	U



**Table 1E-Industrial**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Industrial Soil	LA RECAP Industrial Soil	EPA RMLs Industrial Soil	Sample ID Date Sample Type	DSE-20-96-525 08/08/2012 Field Duplicate	DSE-21-96-515 08/09/2012 Field Sample	
Phenanthrene	mg/kg	0.96		42533.41269		--	0.26      U	0.32      U	
Phenol	mg/kg	0.96	180000	14532.1499	550000	--	0.26      U	0.32      U	
Pyrene	mg/kg	0.96	17000	5606.69618	50000	--	0.26      UJv	0.32      UJv	
		<ul style="list-style-type: none"> <li>- Concentration 3x above background</li> <li>- Concentration above EPA RSL and 3x background</li> <li>- Concentration above RECAP and 3x background</li> <li>- Concentration above EPA RSLs, RECAP, and 3x background</li> <li>- Concentration above EPA RMLs and 3x background</li> <li>- Concentration above EPA RMLs, RECAP, and 3x background</li> <li>- Concentration above EPA RMLs, RSLs, and 3x background</li> <li>- Concentration above EPA RMLs, RSLs, RECAP, and 3x background</li> </ul>							



**Table 1E-Residential**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs	LA RECAP Residential Soil	EPA RMLs	Sample ID Date	DSE-04-96-515 08/06/2012 Field Sample	DSE-05-96-515 08/08/2012 Field Sample	DSE-06-96-515 08/07/2012 Field Sample	DSE-07-96-515 08/06/2012 Field Sample	DSE-08-96-515 08/07/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	30900	77000		230000	--	27300	12700	22200	23000	23800	
Antimony	mg/kg	2.28	31	3.128571429	94	--	1.5	U-	1.1	U-	1.7	U-
Arsenic	mg/kg	22.8	0.39	11.5	39	--	8.4	9.2	5.9	J	6	J
Barium	mg/kg	702	15000	547.5	46000	--	385	4330	428	J	314	J
Beryllium	mg/kg	3.6	160	15.64285714	470	--	1.7	1.1	1.2		1.6	
Cadmium	mg/kg	0.57	70	3.89979486	210	--	0.14	U	0.24	U+	0.23	U
Calcium	mg/kg	20940				--	7560	7140	6440	J	6770	J
Chromium	mg/kg	42				--	28	24.5	19.9		23.2	
Cobalt	mg/kg	38.7	23	469.2857143	70	--	20.5	8	J	11.5	16.9	
Copper	mg/kg	84	3100	312.8571429	9400	--	36.4	22.9	24.1		25.2	
Iron	mg/kg	59700	55000		160000	--	34200	18500	24400	J	29800	J
Lead	mg/kg	76.2	400	400	400	--	32.5	J	52.3		26.8	J
Magnesium	mg/kg	15630				--	9110	5180	6460	J	7550	J
Manganese	mg/kg	687	1800			--	260	304	232	J	366	J
Mercury	mg/kg	0.168	10		30	--	0.028	U	0.083	U	0.049	U
Nickel	mg/kg	113.1	1500	156.4285714	4600	--	46.6		27	J	31.1	
Potassium	mg/kg	4530				--	3840	2130	3070		3530	
Selenium	mg/kg	9.3	390	39.10714286	1200	--	2.7	U	2.6	U	2.6	U
Silver	mg/kg	2.76	390	39.10714286	1200	--	0.25	U	0.22	U	1.2	U
Sodium	mg/kg	4920				--	1820	4820	2560		1740	
Vanadium	mg/kg	95.1		54.75		--	54.2	30.6	46.8		58	
Zinc	mg/kg	207	23000	2346.428571	70000	--	114	J	97.1		82.5	J
<b>Organic</b>												
2-Butanone	mg/kg	0.033	28000	590.9671771	84000	--	0.02		0.049		0.017	U
2-Methylnaphthalene	mg/kg	0.96	230	22.15593188	690	--	0.31	U	1.3		0.6	
Acenaphthene	mg/kg	0.96	3400	373.6479476	10000	--	0.31	U	0.3	U	0.21	U
Acetone	mg/kg	0.153	61000	174.2704067	180000	--	0.12		0.27		0.1	
Acetophenone	mg/kg	0.96	7800		23000	--	0.17	U	0.3	U	0.28	U
alpha-Chlordane	mg/kg	0.0096				--	0.0032	U	0.003	UJv	0.0027	U
Anthracene	mg/kg	0.96	17000	2188.505596	52000	--	0.31	U	0.082	U	0.065	U
beta-BHC	mg/kg	0.0096	0.27	0.291310659	27	--	0.0032	U	0.003	UJv	0.0027	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.96	35	34.51630075	3500	--	0.31	U	0.3	UJv	0.28	U
Chrysene	mg/kg	0.96	15	61.90114483	1500	--	0.31	U	0.3	U	0.078	U
delta-BHC	mg/kg	0.0096				--	0.0032	U	0.003	UJv	0.0027	U
Di-n-butylphthalate	mg/kg	0.96	6100		18000	--	0.31	U	0.072	UJv	0.087	U
Fluorene	mg/kg	0.96	2300	276.6833948	6900	--	0.31	U	0.2	U	0.21	U
Isopropylbenzene	mg/kg	0.0273	2100		6200	--	0.0084	U	0.012	U	0.0036	U
Naphthalene	mg/kg	0.96	3.6	6.19574424	360	--	0.31	U	0.15	U	0.28	U
Phenanthrene	mg/kg	0.96		2108.62766		--	0.31	U	0.46		0.5	



**Table 1E-Residential**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-04-96-515 08/06/2012 Field Sample	DSE-05-96-515 08/08/2012 Field Sample	DSE-06-96-515 08/07/2012 Field Sample	DSE-07-96-515 08/06/2012 Field Sample	DSE-08-96-515 08/07/2012 Field Sample	
Phenol	mg/kg	0.96	18000	1287.794675	55000	--	<b>0.077</b>   U	0.3   U	0.28   U	0.37   U	0.35   U	
Pyrene	mg/kg	0.96	1700	229.1608461	5200	--	0.31   U	<b>0.077</b>   U	<b>0.071</b>   U	0.37   Uv	0.35   U	
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-												
-												
-												
-												
-												
-												
-												

- Concentration 3x above background
- Concentrtrtion above EPA RSL and 3x background
- Concentration above RECAP and 3x background
- Concentration above EPA RSLs, RECAP, and 3x background
- Concentration above EPA RMLs and 3x background
- Concentration above EPA RMLs, RECAP, and 3x background
- Concentration above EPA RMLs, RSLs, and 3x background
- Concentration above EPA RMLs, RSLs, RECAP, and 3x background



**Table 1E-Residential**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-96-515 08/06/2012 Field Sample	DSE-13-96-515 08/07/2012 Field Sample	DSE-14-96-515 08/09/2012 Field Sample	DSE-16-96-515 08/07/2012 Field Sample	DSE-20-96-515 08/08/2012 Field Sample	
<b>Metals</b>												
Aluminum	mg/kg	30900	77000		230000	--	6520	18900	8910	20900		14600
Antimony	mg/kg	2.28	31	3.128571429	94	--	7.1	J-	1.5	U-	0.47	U-
Arsenic	mg/kg	22.8	0.39	11.5	39	--	26		6.9		8.7	
Barium	mg/kg	702	15000	547.5	46000	--	7130		204		169	J-
Beryllium	mg/kg	3.6	160	15.64285714	470	--	0.54	J+	0.99		0.98	
Cadmium	mg/kg	0.57	70	3.89979486	210	--	4.9		0.6	U	0.07	U
Calcium	mg/kg	20940				--	9030		6250		5530	
Chromium	mg/kg	42				--	17		18.1		13.2	
Cobalt	mg/kg	38.7	23	469.2857143	70	--	6.6		12.8		7.7	
Copper	mg/kg	84	3100	312.8571429	9400	--	43.3		17.6		23.6	J
Iron	mg/kg	59700	55000		160000	--	18800		29700		15600	
Lead	mg/kg	76.2	400	400	400	--	799	J	22.1	J	19.6	
Magnesium	mg/kg	15630				--	3720		6630		4430	
Manganese	mg/kg	687	1800			--	468		597		166	J
Mercury	mg/kg	0.168	10		30	--	0.86		0.03	U	0.031	U
Nickel	mg/kg	113.1	1500	156.4285714	4600	--	16.7		32		23.8	
Potassium	mg/kg	4530				--	1090		3100		1700	
Selenium	mg/kg	9.3	390	39.10714286	1200	--	1.4	U	2.6	U	2.7	U
Silver	mg/kg	2.76	390	39.10714286	1200	--	3		0.3	U	1.4	U
Sodium	mg/kg	4920				--	593		1450		1290	
Vanadium	mg/kg	95.1		54.75		--	19.6		42.8		29.8	
Zinc	mg/kg	207	23000	2346.428571	70000	--	734	J	82	J	57.7	J-
<b>Organic</b>												
2-Butanone	mg/kg	0.033	28000	590.9671771	84000	--	0.013	U	0.014	U	0.027	
2-Methylnaphthalene	mg/kg	0.96	230	22.15593188	690	--	0.42		0.28	U	0.29	U
Acenaphthene	mg/kg	0.96	3400	373.6479476	10000	--	0.26	U	0.28	U	0.29	U
Acetone	mg/kg	0.153	61000	174.2704067	180000	--	0.058		0.066		0.095	
Acetophenone	mg/kg	0.96	7800		23000	--	0.26	U	0.28	U	0.29	U
alpha-Chlordane	mg/kg	0.0096				--	0.0025	U	0.0028	U	0.0029	U
Anthracene	mg/kg	0.96	17000	2188.505596	52000	--	0.26	U	0.28	U	0.29	U
beta-BHC	mg/kg	0.0096	0.27	0.291310659	27	--	0.0025	U	0.0028	U	0.0029	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.96	35	34.51630075	3500	--	0.26	U	0.28	U	0.29	U
Chrysene	mg/kg	0.96	15	61.90114483	1500	--	0.26	U	0.28	U	0.29	U
delta-BHC	mg/kg	0.0096				--	0.0025	U	0.0028	U	0.0029	U
Di-n-butylphthalate	mg/kg	0.96	6100		18000	--	0.095	U	0.062	U	0.06	U
Fluorene	mg/kg	0.96	2300	276.6833948	6900	--	0.26	U	0.28	U	0.29	U
Isopropylbenzene	mg/kg	0.0273	2100		6200	--	0.0066	U	0.0095	U	0.0089	U
Naphthalene	mg/kg	0.96	3.6	6.19574424	360	--	0.26	U	0.28	U	0.29	U
Phenanthrene	mg/kg	0.96		2108.62766		--	0.23	U	0.28	U	0.29	U



**Table 1E-Residential**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-10-96-515 08/06/2012 Field Sample	DSE-13-96-515 08/07/2012 Field Sample	DSE-14-96-515 08/09/2012 Field Sample	DSE-16-96-515 08/07/2012 Field Sample	DSE-20-96-515 08/08/2012 Field Sample	
Phenol	mg/kg	0.96	18000	1287.794675	55000	--	0.26	U	0.28	U	0.29	U
Pyrene	mg/kg	0.96	1700	229.1608461	5200	--	0.26	U	0.28	U	0.29	U
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**Table 1E-Residential**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date Sample Type	DSE-20-96-525 08/08/2012 Field Duplicate	DSE-21-96-515 08/09/2012 Field Sample
<b>Metals</b>								
Aluminum	mg/kg	30900	77000		230000	--	<b>14400</b>	
Antimony	mg/kg	2.28	31	3.128571429	94	--	<b>0.66</b>	<b>LJ-</b>
Arsenic	mg/kg	22.8	0.39	11.5	39	--	<b>8</b>	<b>7.6</b>
Barium	mg/kg	702	15000	547.5	46000	--	<b>279</b>	<b>234</b>
Beryllium	mg/kg	3.6	160	15.64285714	470	--	<b>1.2</b>	<b>1.2</b>
Cadmium	mg/kg	0.57	70	3.89979486	210	--	0.66	<b>U</b>
Calcium	mg/kg	20940				--	<b>6220</b>	<b>6980</b>
Chromium	mg/kg	42				--	<b>18.5</b>	<b>14</b>
Cobalt	mg/kg	38.7	23	469.2857143	70	--	<b>14.3</b>	<b>J</b>
Copper	mg/kg	84	3100	312.8571429	9400	--	<b>25.1</b>	
Iron	mg/kg	59700	55000		160000	--	<b>19200</b>	<b>19900</b>
Lead	mg/kg	76.2	400	400	400	--	<b>25</b>	<b>25.4</b>
Magnesium	mg/kg	15630				--	<b>5820</b>	<b>5210</b>
Manganese	mg/kg	687	1800			--	<b>191</b>	<b>229</b>
Mercury	mg/kg	0.168	10		30	--	<b>0.052</b>	<b>LJ</b>
Nickel	mg/kg	113.1	1500	156.4285714	4600	--	<b>37.8</b>	<b>J</b>
Potassium	mg/kg	4530				--	<b>2380</b>	<b>1510</b>
Selenium	mg/kg	9.3	390	39.10714286	1200	--	<b>3.1</b>	<b>LJ</b>
Silver	mg/kg	2.76	390	39.10714286	1200	--	1.3	<b>U</b>
Sodium	mg/kg	4920				--	<b>1180</b>	<b>1640</b>
Vanadium	mg/kg	95.1		54.75		--	<b>35.2</b>	<b>31.7</b>
Zinc	mg/kg	207	23000	2346.428571	70000	--	<b>82.1</b>	<b>69</b>
<b>Organic</b>								
2-Butanone	mg/kg	0.033	28000	590.9671771	84000	--	<b>0.034</b>	<b>J^</b>
2-Methylnaphthalene	mg/kg	0.96	230	22.15593188	690	--	0.26	<b>U</b>
Acenaphthene	mg/kg	0.96	3400	373.6479476	10000	--	0.26	<b>U</b>
Acetone	mg/kg	0.153	61000	174.2704067	180000	--	0.017	<b>U</b>
Acetophenone	mg/kg	0.96	7800		23000	--	0.26	<b>U</b>
alpha-Chlordane	mg/kg	0.0096				--	0.0026	<b>U</b>
Anthracene	mg/kg	0.96	17000	2188.505596	52000	--	0.26	<b>U</b>
beta-BHC	mg/kg	0.0096	0.27	0.291310659	27	--	0.0026	<b>U</b>
Bis(2-ethylhexyl)phthalate	mg/kg	0.96	35	34.51630075	3500	--	<b>0.092</b>	<b>LJv</b>
Chrysene	mg/kg	0.96	15	61.90114483	1500	--	0.26	<b>UJv</b>
delta-BHC	mg/kg	0.0096				--	0.0026	<b>U</b>
Di-n-butylphthalate	mg/kg	0.96	6100		18000	--	<b>0.075</b>	<b>LJv</b>
Fluorene	mg/kg	0.96	2300	276.6833948	6900	--	0.26	<b>UJv</b>
Isopropylbenzene	mg/kg	0.0273	2100		6200	--	0.0086	<b>U</b>
Naphthalene	mg/kg	0.96	3.6	6.19574424	360	--	0.26	<b>U</b>
Phenanthrene	mg/kg	0.96		2108.62766		--	0.26	<b>U</b>



**Table 1E-Residential**  
**Soil Sample Analytical Results Summary at 96 inches**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Soil Background (DSE-21) - 3x	EPA RSLs Residential Soil	LA RECAP Residential Soil	EPA RMLs Residential Soil	Sample ID Date	DSE-20-96-525 08/08/2012 Field Duplicate	DSE-21-96-515 08/09/2012 Field Sample	
Phenol	mg/kg	0.96	18000	1287.794675	55000	--	0.26      U	0.32      U	
Pyrene	mg/kg	0.96	1700	229.1608461	5200	--	0.26      UJv	0.32      UJv	
		<ul style="list-style-type: none"> <li>- Concentration 3x above background</li> <li>- Concentration above EPA RSL and 3x background</li> <li>- Concentration above RECAP and 3x background</li> <li>- Concentration above EPA RSLs, RECAP, and 3x background</li> <li>- Concentration above EPA RMLs and 3x background</li> <li>- Concentration above EPA RMLs, RECAP, and 3x background</li> <li>- Concentration above EPA RMLs, RSLs, and 3x background</li> <li>- Concentration above EPA RMLs, RSLs, RECAP, and 3x background</li> </ul>							



**Table 2**  
**Water Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Water - 3X	BLC-01-00-111 08/09/2012 Field Sample	BLC-02-00-111 08/09/2012 Field Sample	BLC-03-00-112 08/09/2012 Field Sample	BLC-04-00-112 08/08/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/L	0.99	<b>0.15</b>	<b>0.21</b>	<b>0.352</b>	<b>0.325</b>
Arsenic	mg/L	0.0099	<b>0.0027</b>	<b>0.0028</b>	<b>0.0021</b>	<b>0.0024</b>
Barium	mg/L	0.309	<b>0.0752</b>	<b>0.0752</b>	<b>0.0786</b>	<b>0.0726</b>
Calcium	mg/L	75.6	<b>23.7</b>	<b>23.4</b>	<b>24.3</b>	<b>23.3</b>
Iron	mg/L	1.776	<b>0.498</b>	<b>0.456</b>	<b>0.562</b>	<b>0.559</b>
Magnesium	mg/L	37.8	<b>10.4</b>	<b>10.4</b>	<b>10.6</b>	<b>10.2</b>
Manganese	mg/L	0.711	<b>0.148</b>	<b>0.143</b>	<b>0.142</b>	<b>0.139</b>
Potassium	mg/L	13.92	<b>3.62</b>	<b>3.57</b>	<b>3.68</b>	<b>3.55</b>
Selenium	mg/L	--				
Sodium	mg/L	160.8	<b>35.8</b>	<b>34.8</b>	<b>35.6</b>	<b>33.6</b>
Zinc	mg/L	0.0819				
<b>Organic</b>						
beta-BHC	mg/L	0.000273	0.00005	0.00005	0.00005	<b>0.000031</b> J
delta-BHC	mg/L	0.00015	<b>0.000026</b> J	0.00005	0.00005	0.00005
Heptachlor	mg/L	0.00042	<b>0.00014</b>	<b>0.00014</b>	<b>0.00013</b>	<b>0.000081</b>
Heptachlor epoxide	mg/L	0.00015	0.00005	0.00005	<b>0.000043</b> J	0.00005
Toluene	mg/L	0.015	0.005	0.005	0.005	<b>0.0036</b> J



**Table 2**  
**Water Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Water - 3X	CC-01-00-111 08/09/2012 Field Sample	CC-02-00-112 08/09/2012 Field Sample	CC-03-00-112 08/09/2012 Field Sample	CC-04-00-112 08/09/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/L	0.99	<b>0.317</b>	<b>0.587</b>	<b>0.375</b>	<b>0.364</b>
Arsenic	mg/L	0.0099	<b>0.0028</b>	<b>0.0025</b>	<b>0.0025</b>	<b>0.0022</b>
Barium	mg/L	0.309	<b>0.103</b>	<b>0.228</b>	<b>0.139</b>	<b>0.153</b>
Calcium	mg/L	75.6	<b>25.2</b>	<b>24.3</b>	<b>23.8</b>	<b>24.1</b>
Iron	mg/L	1.776	<b>0.551</b>	<b>0.947</b>	<b>0.716</b>	<b>0.797</b>
Magnesium	mg/L	37.8	<b>11.9</b>	<b>10.8</b>	<b>10.5</b>	<b>10.4</b>
Manganese	mg/L	0.711	<b>0.114</b>	<b>0.141</b>	<b>0.133</b>	<b>0.149</b>
Potassium	mg/L	13.92	<b>4.33</b>	<b>3.85</b>	<b>3.76</b>	<b>3.71</b>
Selenium	mg/L	--				
Sodium	mg/L	160.8	<b>50.7</b>	<b>38.4</b>	<b>36.5</b>	<b>34.4</b>
Zinc	mg/L	0.0819				
<b>Organic</b>						
beta-BHC	mg/L	0.000273	0.00005	0.00005	0.00005	0.00005
delta-BHC	mg/L	0.00015	0.00005	<b>0.000033</b>	J	0.00005
Heptachlor	mg/L	0.00042	<b>0.000091</b>	<b>0.00013</b>	<b>0.00012</b>	<b>0.00013</b>
Heptachlor epoxide	mg/L	0.00015	0.00005	<b>0.000026</b>	J	<b>0.000032</b>
Toluene	mg/L	0.015	0.005	0.005	0.005	0.005



**Table 2**  
**Water Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Water - 3X	CC-04-00-122 08/09/2012 Field Sample	DC-01-00-111 08/08/2012 Field Sample	HNC-01-00-112 08/08/2012 Field Sample	HNC-02-00-112 08/08/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/L	0.99	<b>0.319</b>	<b>0.198</b>	<b>0.261</b>	<b>0.33</b>
Arsenic	mg/L	0.0099	<b>0.0023</b>	<b>0.0022</b>	<b>0.0028</b>	<b>0.0033</b>
Barium	mg/L	0.309	<b>0.118</b>	<b>0.0954</b>	<b>0.0747</b>	<b>0.0769</b>
Calcium	mg/L	75.6	<b>23.5</b>	<b>23.2</b>	<b>23.5</b>	<b>24.6</b>
Iron	mg/L	1.776	<b>0.706</b>	<b>0.425</b>	<b>0.517</b>	<b>0.592</b>
Magnesium	mg/L	37.8	<b>10.1</b>	<b>9.8</b>	<b>9.98</b>	<b>12.6</b>
Manganese	mg/L	0.711	<b>0.142</b>	<b>0.139</b>	<b>0.237</b>	<b>0.198</b>
Potassium	mg/L	13.92	<b>3.6</b>	<b>3.39</b>	<b>4.09</b>	<b>4.64</b>
Selenium	mg/L	--				
Sodium	mg/L	160.8	<b>33.6</b>	<b>30.9</b>	<b>31.5</b>	<b>53.6</b>
Zinc	mg/L	0.0819		<b>0.0273</b>		
<b>Organic</b>						
beta-BHC	mg/L	0.000273	0.00005	<b>0.000091</b>	<b>0.000028</b>	J <b>0.000042</b> J
delta-BHC	mg/L	0.00015	0.00005	0.00005	0.00005	0.00005
Heptachlor	mg/L	0.00042	<b>0.00013</b>	<b>0.000056</b>	<b>0.000081</b>	<b>0.000064</b>
Heptachlor epoxide	mg/L	0.00015	0.00005	0.00005	0.00005	0.00005
Toluene	mg/L	0.015	0.005	0.005	0.005	0.005



**Table 2**  
**Water Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Water - 3X	HNC-03-00-112 08/08/2012 Field Sample	HNC-04-00-112 08/08/2012 Field Sample	HNC-05-00-112 08/08/2012 Field Sample	MPC-01-00-111 08/09/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/L	0.99	<b>0.277</b>	<b>0.229</b>	<b>0.299</b>	<b>0.293</b>
Arsenic	mg/L	0.0099	<b>0.0029</b>	<b>0.0024</b>	<b>0.0038</b>	<b>0.0026</b>
Barium	mg/L	0.309	<b>0.078</b>	<b>0.0725</b>	<b>0.0749</b>	<b>0.0746</b>
Calcium	mg/L	75.6	<b>24.3</b>	<b>24.7</b>	<b>25.9</b>	<b>24.1</b>
Iron	mg/L	1.776	<b>0.509</b>	<b>0.41</b>	<b>0.524</b>	<b>0.5</b>
Magnesium	mg/L	37.8	<b>12.2</b>	<b>14.8</b>	<b>17.8</b>	<b>10.4</b>
Manganese	mg/L	0.711	<b>0.198</b>	<b>0.172</b>	<b>0.184</b>	<b>0.136</b>
Potassium	mg/L	13.92	<b>4.42</b>	<b>5</b>	<b>5.98</b>	<b>3.62</b>
Selenium	mg/L	--		<b>0.0022</b>	<b>0.0024</b>	
Sodium	mg/L	160.8	<b>49.7</b>	<b>73.1</b>	<b>98</b>	<b>34.7</b>
Zinc	mg/L	0.0819				
<b>Organic</b>						
beta-BHC	mg/L	0.000273	<b>0.00016</b>	<b>0.00005</b>	<b>0.00005</b>	<b>0.00005</b>
delta-BHC	mg/L	0.00015	0.00005	0.00005	0.00005	0.00005
Heptachlor	mg/L	0.00042	<b>0.000066</b>	<b>0.000039</b>	J	<b>0.000054</b>
Heptachlor epoxide	mg/L	0.00015	0.00005	0.00005	0.00005	<b>0.000047</b>
Toluene	mg/L	0.015	0.005	0.005	0.005	0.005



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	BLC-01-03-611 08/09/2012 Field Sample	BLC-02-03-611 08/09/2012 Field Sample	BLC-03-03-612 08/09/2012 Field Sample	BLC-04-03-612 08/08/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/kg	46500	7730	8570	8130	10000
Arsenic	mg/kg	72	7.4	10.5	7.5	8.7
Barium	mg/kg	6150	1830	2050	2770	2780
Beryllium	mg/kg	3.9	0.7			
Cadmium	mg/kg	--				
Calcium	mg/kg	83100	27700	5850	6350	6610
Chromium	mg/kg	39.6	11.4	8.7	12	14
Cobalt	mg/kg	59.4	10.2	12.5	12.9	14.1
Copper	mg/kg	91.8	30.6	19.4	27.8	29
Iron	mg/kg	132300	16800	23600	17400	20000
Lead	mg/kg	129.6	43.2	21	49.6	31.9
Magnesium	mg/kg	20940	4140	4620	4740	5710
Manganese	mg/kg	2790	491	759	610	669
Mercury	mg/kg	0.495	0.165			
Nickel	mg/kg	95.4	18.8	20.9	20.8	24.1
Potassium	mg/kg	6870	1350	1540	1550	1860
Sodium	mg/kg	3870	398	669	872	916
Vanadium	mg/kg	108.6	20.5	23.6	20.9	25.4
Zinc	mg/kg	501	167	132	179	162
<b>Volatiles</b>						
2-Butanone	mg/kg	0.3	0.01	J	0.022	0.024
Acetone	mg/kg	0.84	0.05		0.075	0.073
Methyl acetate	mg/kg	0.045	0.0062		0.0083	0.0096
<b>Semivolatiles</b>						



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	BLC-01-03-611 08/09/2012 Field Sample		BLC-02-03-611 08/09/2012 Field Sample		BLC-03-03-612 08/09/2012 Field Sample		BLC-04-03-612 08/08/2012 Field Sample	
Benzo(a)anthracene	mg/kg	0.33	0.26	U	0.36	U	<b>0.17</b>	J	0.45	U
Benzo(a)pyrene	mg/kg	0.33	0.26	U	0.36	U	<b>0.18</b>	J	0.45	U
Benzo(b)fluoranthene	mg/kg	0.33	0.26	U	0.36	U	<b>0.21</b>	J	0.45	U
Benzo(g,h,i)perylene	mg/kg	0.33	0.26	U	0.36	U	<b>0.1</b>	J	0.45	U
Benzo(k)fluoranthene	mg/kg	0.33	0.26	U	0.36	U	<b>0.14</b>	J	0.45	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.33	0.26	U	0.36	U	0.39		<b>0.25</b>	J
Chrysene	mg/kg	0.33	0.26	U	0.36	U	<b>0.23</b>	J	0.45	U
Dimethylphthalate	mg/kg	0.33	0.26	U	0.36	U	0.39		0.45	U
Di-n-butylphthalate	mg/kg	0.33	<b>0.069</b>	J	0.36	U	0.39		<b>0.092</b>	J
Fluoranthene	mg/kg	0.33	0.26	U	0.36	U	<b>0.41</b>		0.45	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.26	U	0.36	U	<b>0.079</b>	J	0.45	U
Phenanthrene	mg/kg	0.33	0.26	U	0.36	U	<b>0.19</b>	J	0.45	U
Pyrene	mg/kg	0.33	0.26	U	0.36	U	<b>0.28</b>	J	0.45	U
<b>Pesticides</b>										
alpha-Chlordane	mg/kg	0.0051	<b>0.0017</b>	J	0.0036	U	0.004		0.0045	U
beta-BHC	mg/kg	0.0072	<b>0.0013</b>	J	<b>0.0024</b>	J	<b>0.0043</b>		<b>0.0024</b>	J
delta-BHC	mg/kg	0.009	0.0026	U	0.0036	U	0.004		0.0045	U
gamma-Chlordane	mg/kg	0.006	<b>0.002</b>	J	0.0036	U	0.004		0.0045	U



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	CC-01-03-611 08/09/2012 Field Sample	CC-02-03-612 08/09/2012 Field Sample	CC-03-03-612 08/09/2012 Field Sample	CC-04-03-612 08/09/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/kg	46500	15500	8850	11900	10400
Arsenic	mg/kg	72	24	15.4	10.6	8.7
Barium	mg/kg	6150	191	1830	3240	748
Beryllium	mg/kg	3.9	1.3			
Cadmium	mg/kg	--		1.2		
Calcium	mg/kg	83100	5450	7960	7260	7440
Chromium	mg/kg	39.6	9.8	105	25.9	14.2
Cobalt	mg/kg	59.4	19.8	13.6	14.9	10.1
Copper	mg/kg	91.8	23.9	75.9	63.7	24.4
Iron	mg/kg	132300	44100	27100	21800	22500
Lead	mg/kg	129.6	20.9	89.6	81.8	34.3
Magnesium	mg/kg	20940	6980	4160	5970	5380
Manganese	mg/kg	2790	412	402	478	432
Mercury	mg/kg	0.495		0.342	0.201	
Nickel	mg/kg	95.4	31.8	32.1	26.2	26.2
Potassium	mg/kg	6870	2240	1530	2180	2260
Sodium	mg/kg	3870	1180	864	1240	1200
Vanadium	mg/kg	108.6	36.2	27.1	30.6	28.8
Zinc	mg/kg	501	80.9	567	360	159
<b>Volatiles</b>						
2-Butanone	mg/kg	0.3	0.02	0.039	0.04	0.03
Acetone	mg/kg	0.84	0.099	0.14	0.15	0.11
Methyl acetate	mg/kg	0.045	0.009	0.0098	0.013	0.015
<b>Semivolatiles</b>						



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	CC-01-03-611 08/09/2012 Field Sample		CC-02-03-612 08/09/2012 Field Sample		CC-03-03-612 08/09/2012 Field Sample		CC-04-03-612 08/09/2012 Field Sample	
Benzo(a)anthracene	mg/kg	0.33	0.33	U	<b>0.27</b>	J	0.49	U	0.64	U
Benzo(a)pyrene	mg/kg	0.33	0.33	U	<b>0.2</b>	J	0.49	U	0.64	U
Benzo(b)fluoranthene	mg/kg	0.33	0.33	U	<b>0.36</b>	J	0.49	U	0.64	U
Benzo(g,h,i)perylene	mg/kg	0.33	0.33	U	<b>0.16</b>	J	0.49	U	0.64	U
Benzo(k)fluoranthene	mg/kg	0.33	0.33	U	<b>0.2</b>	J	0.49	U	0.64	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.33	0.33	U	<b>0.27</b>	J	<b>0.18</b>	J	0.64	U
Chrysene	mg/kg	0.33	0.33	U	<b>0.29</b>	J	0.49	U	0.64	U
Dimethylphthalate	mg/kg	0.33	0.33	U	0.41		0.49	U	0.64	U
Di-n-butylphthalate	mg/kg	0.33	0.33	U	<b>0.12</b>	J	<b>0.12</b>	J	0.64	U
Fluoranthene	mg/kg	0.33	0.33	U	<b>0.48</b>		<b>0.12</b>	J	0.64	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.33	U	<b>0.15</b>	J	0.49	U	0.64	U
Phenanthrene	mg/kg	0.33	0.33	U	0.41		0.49	U	0.64	U
Pyrene	mg/kg	0.33	0.33	U	<b>0.42</b>		<b>0.1</b>	J	0.64	U
<b>Pesticides</b>										
alpha-Chlordane	mg/kg	0.0051	0.0034	U	0.004	U	0.0049	U	0.0062	U
beta-BHC	mg/kg	0.0072	0.0034	U	0.004	U	<b>0.0028</b>	J	<b>0.0038</b>	J
delta-BHC	mg/kg	0.009	0.0034	U	0.004	U	0.0049	U	0.0062	U
gamma-Chlordane	mg/kg	0.006	0.0034	U	0.004	U	0.0049	U	0.0062	U



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	CC-04-03-622 08/09/2012 Field Duplicate	DC-01-03-611 08/08/2012 Field Sample	HNC-01-03-611 08/08/2012 Field Sample	HNC-02-03-611 08/08/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/kg	46500	9260	7620	7750	11100
Arsenic	mg/kg	72	10	7.6	6.9	4.7
Barium	mg/kg	6150	2680	1900	623	209
Beryllium	mg/kg	3.9				1.1
Cadmium	mg/kg	--				
Calcium	mg/kg	83100	6370	8120	27700	7110
Chromium	mg/kg	39.6	17.6	11.1	9.6	11.8
Cobalt	mg/kg	59.4	13.4	11.4	9.1	7.4
Copper	mg/kg	91.8	38.9	27	22.9	29
Iron	mg/kg	132300	18000	16100	16400	14900
Lead	mg/kg	129.6	55.9	22.4	24.5	18.7
Magnesium	mg/kg	20940	4880	5600	4180	5710
Manganese	mg/kg	2790	473	627	930	223
Mercury	mg/kg	0.495	0.137			
Nickel	mg/kg	95.4	23.3	20.3	18.8	19.2
Potassium	mg/kg	6870	1750	1360	1290	1980
Sodium	mg/kg	3870	864	608	605	430
Vanadium	mg/kg	108.6	24.1	20.7	19.1	29.8
Zinc	mg/kg	501	267	138	76.4	85.2
<b>Volatiles</b>						
2-Butanone	mg/kg	0.3	0.048	0.032	v	0.093
Acetone	mg/kg	0.84	0.17	0.043	v	0.27
Methyl acetate	mg/kg	0.045	0.014	0.011	J	0.015
<b>Semivolatiles</b>						



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	CC-04-03-622 08/09/2012 Field Duplicate		DC-01-03-611 08/08/2012 Field Sample		HNC-01-03-611 08/08/2012 Field Sample		HNC-02-03-611 08/08/2012 Field Sample	
Benzo(a)anthracene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Benzo(a)pyrene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Benzo(b)fluoranthene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Benzo(g,h,i)perylene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Benzo(k)fluoranthene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.33	<b>0.14</b>	J	0.44	U	<b>0.29</b>	J	<b>0.17</b>	J
Chrysene	mg/kg	0.33	0.46	U	0.44	U	<b>0.099</b>	J	0.27	U
Dimethylphthalate	mg/kg	0.33	<b>0.1</b>	J	0.44	U	0.47	U	0.27	U
Di-n-butylphthalate	mg/kg	0.33	<b>0.11</b>	J	<b>0.091</b>	J	<b>0.11</b>	J	<b>0.063</b>	J
Fluoranthene	mg/kg	0.33	0.46	U	0.44	U	<b>0.23</b>	J	0.27	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Phenanthrene	mg/kg	0.33	0.46	U	0.44	U	0.47	U	0.27	U
Pyrene	mg/kg	0.33	0.46	U	0.44	U	<b>0.2</b>	J	0.27	U
<b>Pesticides</b>										
alpha-Chlordane	mg/kg	0.0051	0.0046	U	0.0044	U	0.0047	U	0.0027	U
beta-BHC	mg/kg	0.0072	<b>0.0028</b>	J	0.0044	U	0.0047	U	0.0027	U
delta-BHC	mg/kg	0.009	0.0046	U	0.0044	U	0.0047	U	0.0027	U
gamma-Chlordane	mg/kg	0.006	0.0046	U	0.0044	U	0.0047	U	0.0027	U



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	HNC-03-03-612 08/08/2012 Field Sample	HNC-04-03-612 08/08/2012 Field Sample	HNC-05-03-612 08/08/2012 Field Sample	MPC-01-03-611 08/09/2012 Field Sample
<b>Metals</b>						
Aluminum	mg/kg	46500	7230	8670	10900	12000
Arsenic	mg/kg	72	9	8.2	4.7	6.2
Barium	mg/kg	6150	959	1560	238	289
Beryllium	mg/kg	3.9			1.1	1.1
Cadmium	mg/kg	--				
Calcium	mg/kg	83100	14500	6480	5090	8280
Chromium	mg/kg	39.6	8.7	11.9	13	13.2
Cobalt	mg/kg	59.4	10.1	11.8	12	10.7
Copper	mg/kg	91.8	18.5	22	26	23.5
Iron	mg/kg	132300	17800	17500	20500	18900
Lead	mg/kg	129.6	18.2	22.9	19.3	19.9
Magnesium	mg/kg	20940	4500	5260	5470	6890
Manganese	mg/kg	2790	736	668	359	444
Mercury	mg/kg	0.495				
Nickel	mg/kg	95.4	19.6	22.6	29.9	26.1
Potassium	mg/kg	6870	1380	1550	1660	2290
Sodium	mg/kg	3870	799	843	765	1290
Vanadium	mg/kg	108.6	20.9	24.1	36.2	34
Zinc	mg/kg	501	88.7	96.2	75.1	74.7
<b>Volatiles</b>						
2-Butanone	mg/kg	0.3	0.019	J	0.016	J
Acetone	mg/kg	0.84	0.073		0.059	
Methyl acetate	mg/kg	0.045	0.0096		0.012	U
<b>Semivolatiles</b>						



**Table 3**  
**Sediment Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	Sediment - 3X	HNC-03-03-612 08/08/2012 Field Sample		HNC-04-03-612 08/08/2012 Field Sample		HNC-05-03-612 08/08/2012 Field Sample		MPC-01-03-611 08/09/2012 Field Sample	
Benzo(a)anthracene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Benzo(a)pyrene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Benzo(b)fluoranthene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Benzo(g,h,i)perylene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Benzo(k)fluoranthene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Bis(2-ethylhexyl)phthalate	mg/kg	0.33	<b>0.13</b>	J	<b>0.15</b>	J	<b>0.15</b>	J	<b>0.11</b>	J
Chrysene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Dimethylphthalate	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Di-n-butylphthalate	mg/kg	0.33	<b>0.1</b>	J	<b>0.11</b>	J	<b>0.1</b>	J	<b>0.094</b>	J
Fluoranthene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Phenanthrene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
Pyrene	mg/kg	0.33	0.34	U	0.41	U	0.36	U	0.33	U
<b>Pesticides</b>										
alpha-Chlordane	mg/kg	0.0051	0.0034	U	0.0041	U	<b>0.0023</b>	J	0.0032	U
beta-BHC	mg/kg	0.0072	<b>0.0027</b>	J	0.0041	U	<b>0.0022</b>	J	<b>0.0022</b>	J
delta-BHC	mg/kg	0.009	<b>0.0022</b>	J	0.0041	U	0.0036	U	<b>0.003</b>	J
gamma-Chlordane	mg/kg	0.006	0.0034	U	0.0041	U	<b>0.0021</b>	J	0.0032	U



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-01-120-413 08/08/2012 Field Sample	DSE-01-144-413 08/08/2012 Field Sample	DSE-01-24-413 08/08/2012 Field Sample	DSE-01-48-413 08/08/2012 Field Sample
<b>General</b>								
% Solids	%			--	66.17	59.83	72.03	71.72
Pan	%			--	1.166	1.161	1.165	1.162
SampleDry&Pan	%			--	4.483	4.249	5.025	4.844
SampleWet	%			--	5.013	5.161	5.359	5.134
<b>Metals</b>								
Aluminum	mg/kg	230000	3000000	--	7310	8510	4030	3520
Antimony	mg/kg	94	1200	--	1.9	1.8	4.8 J	6.5
Arsenic	mg/kg	39	160	--	26.3	37.3	28.6	26.9
Barium	mg/kg	46000	570000	--	1060	1410	683 J	635
Beryllium	mg/kg	470	6000	--		0.9		
Cadmium	mg/kg	210	2400	--	1.5		5.8	6
Calcium	mg/kg			--	14300	7620	17300 J	19500
Chromium	mg/kg			--	96.2	17.3	327	296
Cobalt	mg/kg	70	910	--	9.2	11.2	7.5	5.2
Copper	mg/kg	9400	120000	--	36	34.5	73.6	73.5
Iron	mg/kg	160000	2100000	--	17000	16300	16200	13500
Lead	mg/kg	400	800	--	310	131	803	733
Magnesium	mg/kg			--	4070	4770	2390	2140
Manganese	mg/kg			--	465	358	569	501
Mercury	mg/kg	30	130	--	0.609	0.142	1.8	2.07
Nickel	mg/kg			--	18.5	23.2	16.3	12.8
Potassium	mg/kg			--	1270	1340	904	871
Selenium	mg/kg	1200	15000	--				
Silver	mg/kg	1200	15000	--			5 J	3.3 K
Sodium	mg/kg			--	1990	1980	467	2150
Vanadium	mg/kg			--	21.3	25.4	14.8	13.3
Zinc	mg/kg	70000	920000	--	361	124	1200	1200



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-01-120-413 08/08/2012 Field Sample	DSE-01-144-413 08/08/2012 Field Sample	DSE-01-24-413 08/08/2012 Field Sample	DSE-01-48-413 08/08/2012 Field Sample
<b>PCBs</b>								
Aroclor-1016	mg/kg	12	110	--			<b>0.0654 NJ</b>	<b>0.0803 NJ</b>
Aroclor-1254	mg/kg	3.4	32	--		<b>0.0386</b>	<b>0.095</b>	
Aroclor-1260	mg/kg	22	74	--				
<b>Pesticides</b>								
4,4'-DDE	mg/kg	140	510	--	<b>0.0341</b>	<b>0.00171</b>		
<b>Semivolatiles</b>								
1,1'-Biphenyl	mg/kg	150	640	--	<b>14.7 J</b>		<b>4.89 J</b>	<b>49.9</b>
2-Methylnaphthalene	mg/kg	690	6600	--	<b>213</b>	<b>5.16 J</b>	<b>50.7 J</b>	<b>593</b>
Acenaphthene	mg/kg	10000	99000	--	<b>6.07 J</b>	<b>0.54</b>	<b>6.39 J</b>	<b>20.1</b>
Anthracene	mg/kg	52000	500000	--	<b>3.47</b>		<b>1.8</b>	<b>6.8 J</b>
Dibenzofuran	mg/kg	230	3100	--	<b>10.3 J</b>		<b>5.52 NJ</b>	<b>22.5</b>
Fluoranthene	mg/kg	6900	66000	--				<b>3.7 J</b>
Fluorene	mg/kg	6900	66000	--	<b>14.9</b>	<b>0.745 J</b>	<b>8.55 J</b>	<b>38.3</b>
Naphthalene	mg/kg	360	1800	--	<b>44.2</b>	<b>0.564 J</b>	<b>18.3</b>	<b>184</b>
Phenanthrene	mg/kg			--	<b>33.4</b>	<b>1.97</b>	<b>11.9</b>	<b>89.2</b>
Pyrene	mg/kg	5200	50000	--	<b>1.55</b>		<b>1.66</b>	<b>3.41</b>
<b>Volatiles</b>								
Acetone	mg/kg	180000	1900000	--				<b>2.04</b>
Benzene	mg/kg	110	540	--				<b>0.86</b>
Cyclohexane	mg/kg	21000	88000	--	<b>0.186 J</b>		<b>0.23 J</b>	<b>1.9 J</b>
Ethylbenzene	mg/kg	540	2700	--	<b>0.492</b>		<b>0.858</b>	<b>6.04</b>
Isopropylbenzene	mg/kg	6200	32000	--	<b>0.324</b>		<b>0.456</b>	<b>2.36</b>
meta-/para-Xylene	mg/kg			--	<b>2.1</b>		<b>3.9</b>	<b>20.3</b>
Methylcyclohexane	mg/kg			--	<b>1 J</b>		<b>1.64 J</b>	<b>5.69 J</b>
ortho-Xylene	mg/kg	2100	9000	--	<b>0.977</b>		<b>2.1</b>	<b>9.94</b>
Toluene	mg/kg	15000	140000	--	<b>0.349</b>		<b>0.641</b>	<b>5.94</b>



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-01-72-413 08/08/2012 Field Sample	DSE-01-96-413 08/08/2012 Field Sample	DSE-02-120-413 08/06/2012 Field Sample	DSE-02-144-413 08/06/2012 Field Sample
<b>General</b>								
% Solids	%			--	71.39	72.08	53.19	57.03
Pan	%			--	1.161	1.159	1.167	1.165
SampleDry&Pan	%			--	4.816	5.023	4.044	4.389
SampleWet	%			--	5.12	5.361	5.409	5.653
<b>Metals</b>								
Aluminum	mg/kg	230000	3000000	--	5890	5500	7960	11500
Antimony	mg/kg	94	1200	--	3.1	5.8		
Arsenic	mg/kg	39	160	--	40.9	63.5	43.1	6.9
Barium	mg/kg	46000	570000	--	1250	604	1620	1470
Beryllium	mg/kg	470	6000	--			0.9 U	1.3
Cadmium	mg/kg	210	2400	--	2.4	3.8	1.7	
Calcium	mg/kg			--	10800	12100	9180	6220
Chromium	mg/kg			--	137	73.2	27.1	12.7
Cobalt	mg/kg	70	910	--	8.9	8.1	7.8	11.7
Copper	mg/kg	9400	120000	--	48.8	57.6	31	31.7
Iron	mg/kg	160000	2100000	--	14300	14500	13200	18100
Lead	mg/kg	400	800	--	405	541	222	30.4
Magnesium	mg/kg			--	3210	3300	4590	5600
Manganese	mg/kg			--	355	489	379	210
Mercury	mg/kg	30	130	--	1.82	1.75	0.655	
Nickel	mg/kg			--	16.6	16.4	17.5	24.6
Potassium	mg/kg			--	1210	1020	1510	1600
Selenium	mg/kg	1200	15000	--	1.3 U			
Silver	mg/kg	1200	15000	--	2.1 K	2 K		
Sodium	mg/kg			--	2230	3090	2550	1980
Vanadium	mg/kg			--	16.6	16.7	24.9	34.7
Zinc	mg/kg	70000	920000	--	560	723	351	91.7



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-01-72-413 08/08/2012 Field Sample	DSE-01-96-413 08/08/2012 Field Sample	DSE-02-120-413 08/06/2012 Field Sample	DSE-02-144-413 08/06/2012 Field Sample
<b>PCBs</b>								
Aroclor-1016	mg/kg	12	110	--	<b>0.0864 NJ</b>			
Aroclor-1254	mg/kg	3.4	32	--		<b>0.0407 NJ</b>	<b>0.0503 NJ</b>	
Aroclor-1260	mg/kg	22	74	--				
<b>Pesticides</b>								
4,4'-DDE	mg/kg	140	510	--		<b>0.00203</b>		
<b>Semivolatiles</b>								
1,1'-Biphenyl	mg/kg	150	640	--	<b>36.1</b>	<b>22.2 J</b>	<b>16.3</b>	
2-Methylnaphthalene	mg/kg	690	6600	--	<b>523</b>	<b>310</b>	<b>165 J</b>	<b>1.39</b>
Acenaphthene	mg/kg	10000	99000	--	<b>19.1</b>	<b>5.04 J</b>		
Anthracene	mg/kg	52000	500000	--	<b>4.84 J</b>	<b>3.15 J</b>	<b>0.937 J</b>	
Dibenzofuran	mg/kg	230	3100	--	<b>17.5</b>	<b>19.1 J</b>	<b>10.2</b>	
Fluoranthene	mg/kg	6900	66000	--	<b>2.04 J</b>		<b>0.964 J</b>	
Fluorene	mg/kg	6900	66000	--	<b>30.3</b>	<b>17.2 J</b>	<b>17.2</b>	
Naphthalene	mg/kg	360	1800	--	<b>164</b>	<b>86.1</b>	<b>46.8 J</b>	
Phenanthrene	mg/kg			--	<b>77.7</b>	<b>43.7</b>	<b>26.9 J</b>	<b>0.642</b>
Pyrene	mg/kg	5200	50000	--	<b>3.21</b>	<b>1.88 J</b>	<b>0.909</b>	
<b>Volatiles</b>								
Acetone	mg/kg	180000	1900000	--	<b>1.4</b>	<b>0.705</b>		
Benzene	mg/kg	110	540	--	<b>0.584</b>	<b>0.146</b>		
Cyclohexane	mg/kg	21000	88000	--	<b>1.34 J</b>	<b>0.416 J</b>	<b>0.25 J</b>	
Ethylbenzene	mg/kg	540	2700	--	<b>3.97</b>	<b>1.48</b>	<b>0.677</b>	
Isopropylbenzene	mg/kg	6200	32000	--	<b>1.55</b>	<b>0.78</b>	<b>0.354</b>	
meta-/para-Xylene	mg/kg			--	<b>16.5</b>	<b>6.24</b>	<b>2.92 J</b>	
Methylcyclohexane	mg/kg			--	<b>7.78 J</b>	<b>2.88 J</b>	<b>1.1 J</b>	
ortho-Xylene	mg/kg	2100	9000	--	<b>8.2</b>	<b>2.59</b>	<b>1.47</b>	
Toluene	mg/kg	15000	140000	--	<b>3.85</b>	<b>0.828</b>	<b>0.445</b>	



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-02-24-413 08/06/2012 Field Sample	DSE-02-48-413 08/06/2012 Field Sample	DSE-02-72-413 08/06/2012 Field Sample	DSE-02-96-413 08/06/2012 Field Sample
<b>General</b>								
% Solids	%			--	74.43	66.51	73.68	71.51
Pan	%			--	1.167	1.178	1.175	1.17
SampleDry&Pan	%			--	5.656	4.623	5.338	5.141
SampleWet	%			--	6.031	5.18	5.65	5.553
<b>Metals</b>								
Aluminum	mg/kg	230000	3000000	--	2120	3770	2630	4870
Antimony	mg/kg	94	1200	--	6.3	8.7	4.7	4.5
Arsenic	mg/kg	39	160	--	26.7	41.9	25.1	43.9
Barium	mg/kg	46000	570000	--	570	528	740	617
Beryllium	mg/kg	470	6000	--				
Cadmium	mg/kg	210	2400	--	6.9	10.2	5.6	5.8
Calcium	mg/kg			--	14000	16300	15200	14000
Chromium	mg/kg			--	179	191	218	114
Cobalt	mg/kg	70	910	--	4	6.5	4.9	7
Copper	mg/kg	9400	120000	--	64.6	90.8	58.6	65.1
Iron	mg/kg	160000	2100000	--	11700	17700	10300	15300
Lead	mg/kg	400	800	--	669	1170	590	572
Magnesium	mg/kg			--	1470	2360	1700	3060
Manganese	mg/kg			--	502	726	432	511
Mercury	mg/kg	30	130	--	2.24	2.67	1.1	0.26
Nickel	mg/kg			--	9.7	13.8	10.1	15
Potassium	mg/kg			--	502	836	623	940
Selenium	mg/kg	1200	15000	--				
Silver	mg/kg	1200	15000	--	3 K	5.3 K	2.6 K	2.1 K
Sodium	mg/kg			--	1110	2320	1520	1430
Vanadium	mg/kg			--	10.4	14.7	10.5	15.9
Zinc	mg/kg	70000	920000	--	1340	2000	1080	1200



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-02-24-413 08/06/2012 Field Sample	DSE-02-48-413 08/06/2012 Field Sample	DSE-02-72-413 08/06/2012 Field Sample	DSE-02-96-413 08/06/2012 Field Sample
<b>PCBs</b>								
Aroclor-1016	mg/kg	12	110	--				
Aroclor-1254	mg/kg	3.4	32	--		0.101 J		0.114
Aroclor-1260	mg/kg	22	74	--				0.0349 NJ
<b>Pesticides</b>								
4,4'-DDE	mg/kg	140	510	--				
<b>Semivolatiles</b>								
1,1'-Biphenyl	mg/kg	150	640	--	43.9	43.7		16.8
2-Methylnaphthalene	mg/kg	690	6600	--	480	612	517	182
Acenaphthene	mg/kg	10000	99000	--	12.6		23.1	
Anthracene	mg/kg	52000	500000	--	4.7 J	6.93	13	1.55 J
Dibenzofuran	mg/kg	230	3100	--	16.3	26		10.5 J
Fluoranthene	mg/kg	6900	66000	--	2.09 J	3.44		1.49 J
Fluorene	mg/kg	6900	66000	--	28.1	44.1	61.7	12.8
Naphthalene	mg/kg	360	1800	--	142	188	79.9	50.6
Phenanthrene	mg/kg			--	72.6	103	100	31.3
Pyrene	mg/kg	5200	50000	--	1.51 J	2.09	13.5	1.27
<b>Volatiles</b>								
Acetone	mg/kg	180000	1900000	--	2.68	2.02	1.88	1.33 J
Benzene	mg/kg	110	540	--	0.754 J	0.762	1.01	0.732
Cyclohexane	mg/kg	21000	88000	--	1.58 J	1.38 J	1.44 J	2.27 J
Ethylbenzene	mg/kg	540	2700	--	6.41 J	4.62	3.52	6.48
Isopropylbenzene	mg/kg	6200	32000	--	2.22 J	1.82	1.36	2.65
meta-/para-Xylene	mg/kg			--	16 J	23.3	15.8	23.9
Methylcyclohexane	mg/kg			--	9.86 J	8.04 J	7.41 J	8.13 J
ortho-Xylene	mg/kg	2100	9000	--	8.22 J	11.3	7.97	11.8
Toluene	mg/kg	15000	140000	--	6.93 J	5.09	4.48	7.45



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-03-24-413 08/09/2012 Field Sample	DSE-03-48-413 08/09/2012 Field Sample
<b>General</b>						
% Solids	%			--	<b>59.21</b>	<b>61.72</b>
Pan	%			--	<b>1.163</b>	<b>1.205</b>
SampleDry&Pan	%			--	<b>4.165</b>	<b>4.525</b>
SampleWet	%			--	<b>5.07</b>	<b>5.379</b>
<b>Metals</b>						
Aluminum	mg/kg	230000	3000000	--	<b>8420</b>	<b>9730</b>
Antimony	mg/kg	94	1200	--		
Arsenic	mg/kg	39	160	--	<b>18.1</b>	<b>26.6</b>
Barium	mg/kg	46000	570000	--	<b>1890</b>	<b>1390</b>
Beryllium	mg/kg	470	6000	--		<b>0.8</b>
Cadmium	mg/kg	210	2400	--	<b>1.7</b>	0.7 U
Calcium	mg/kg			--	<b>9450</b>	<b>9550</b>
Chromium	mg/kg			--	<b>98 J</b>	<b>25.9</b>
Cobalt	mg/kg	70	910	--	<b>9.4</b>	<b>12.7</b>
Copper	mg/kg	9400	120000	--	<b>41.3</b>	<b>34.8</b>
Iron	mg/kg	160000	2100000	--	<b>15900</b>	<b>20300</b>
Lead	mg/kg	400	800	--	<b>194</b>	<b>151</b>
Magnesium	mg/kg			--	<b>3790</b>	<b>5180</b>
Manganese	mg/kg			--	<b>304</b>	<b>541</b>
Mercury	mg/kg	30	130	--	<b>0.478</b>	<b>0.207</b>
Nickel	mg/kg			--	<b>17.4</b>	<b>26.7</b>
Potassium	mg/kg			--	<b>1500</b>	<b>1740</b>
Selenium	mg/kg	1200	15000	--	<b>2.8</b>	<b>5.8</b>
Silver	mg/kg	1200	15000	--		
Sodium	mg/kg			--	<b>498</b>	<b>797</b>
Vanadium	mg/kg			--	<b>24.4</b>	<b>24.2</b>
Zinc	mg/kg	70000	920000	--	<b>430 J</b>	<b>281</b>



**Table 4**  
**Pit - Waste Sample Analytical Results Summary**  
**Delta Shipyards**  
**Houma, LA**

Analyte	Units	EPA RML Residential Soil	EPA RML Industrial Soil	Sample ID Date Sample Type	DSE-03-24-413 08/09/2012 Field Sample	DSE-03-48-413 08/09/2012 Field Sample
<b>PCBs</b>						
Aroclor-1016	mg/kg	12	110	--		
Aroclor-1254	mg/kg	3.4	32	--		<b>0.259</b>
Aroclor-1260	mg/kg	22	74	--		<b>0.0446 J</b>
<b>Pesticides</b>						
4,4'-DDE	mg/kg	140	510	--		
<b>Semivolatiles</b>						
1,1'-Biphenyl	mg/kg	150	640	--		<b>1.71</b>
2-Methylnaphthalene	mg/kg	690	6600	--	<b>98.4</b>	<b>21.8</b>
Acenaphthene	mg/kg	10000	99000	--	<b>3.56</b>	<b>0.993</b>
Anthracene	mg/kg	52000	500000	--	<b>2.55</b>	<b>0.455</b>
Dibenzofuran	mg/kg	230	3100	--		<b>0.913</b>
Fluoranthene	mg/kg	6900	66000	--		<b>0.52</b>
Fluorene	mg/kg	6900	66000	--	<b>11.6</b>	<b>2.63</b>
Naphthalene	mg/kg	360	1800	--	<b>10.6</b>	<b>5.19</b>
Phenanthrene	mg/kg			--	<b>23.5</b>	<b>4.93</b>
Pyrene	mg/kg	5200	50000	--	<b>2.2</b>	<b>0.701</b>
<b>Volatiles</b>						
Acetone	mg/kg	180000	1900000	--		
Benzene	mg/kg	110	540	--		
Cyclohexane	mg/kg	21000	88000	--	<b>0.165</b>	
Ethylbenzene	mg/kg	540	2700	--	<b>0.163</b>	<b>0.223</b>
Isopropylbenzene	mg/kg	6200	32000	--	<b>0.286</b>	<b>0.109</b>
meta-/para-Xylene	mg/kg			--	<b>0.812</b>	<b>0.891</b>
Methylcyclohexane	mg/kg			--	<b>0.955</b>	<b>0.266</b>
ortho-Xylene	mg/kg	2100	9000	--	<b>0.501</b>	<b>0.463</b>
Toluene	mg/kg	15000	140000	--	<b>0.103</b>	<b>0.153</b>



**ATTACHMENT D**  
**START-3 SITE LOGBOOKS**

FOREST SERVICE  
49342



"Rite in the Rain"<sup>®</sup>  
ALL-WEATHER  
**JOURNAL**  
No. 391

Delta Shipyard  
TO-0019-11-10-01  
WO# Z0406.012.019.  
0680.01

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1

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Project Delta Shipyard

TO - 0019-11-10-01

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4

5

6

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TODD THIBODEAUX

Environmental Scientist

Office of Environmental Assessment  
Louisiana Department of Environmental Quality

3516

Remediation Services Division

(225) 219-~~2225~~

Post Office Box 4314

Fax: (225) 219-3239

Baton Rouge, LA 70821-4314 e-mail: Todd.Thibodeaux@la.gov

13000100

2

01-09-12

TO-0019-11-10-01

12:45 Arrive at New Orleans.

15:00 Arrive at Terminal Rd.

$30^{\circ}0'3''N$ ,  $90^{\circ}0'35''W$ . Drive to end of gravel Rd. on south end flatbed storage. Crescent Crown Distributing at  $29^{\circ}59'59''N$ ,  $90^{\circ}0'55''W$  on east side of Terminal Rd.

16:00 Arrive at former Recoil Corporation - 4150 Paris Rd.  
 $29^{\circ}57'37''N$ ,  $89^{\circ}57'20''W$ .

Abandoned orange bldg. with garage door bays. Only other bldgs. in area include St. Bernard Parish government bldgs., possibly maintenance facility.

18:00 Arrive at hotel in Houma, LA.

*Michael J. Don*

3

01-10-12

TO-0019-11-10-01

10:30 Arrive at Delta Shipyard. M. Brown (SMART) Brenda Cook (EPA). Meet LDEQ personnel Todd Thibaux, John Halk view pits which are currently dry. Pits look muddy with crusty areas. Depth unknown, but est. 10-12' deep. LDEQ concerned w/ flooding + proximity to waterway. Based on a gentleman driving by, property currently owned by EBI. Believe 4th pit remediated, or dug up - that pit on private property. No vegetation currently growing on any of the three existing pits observed. LDEQ looking at treating in place, possibly solidifying. Need historical aerials, current property owners, current property boundaries. Shaun + Elisha w/ EBI on property checking to

*Michael J. Don*

01-10-12

TO-0019-11-10-01

see what we are doing.  
 Property actually owned  
 by Lee Dean, Elisha's  
 grandfather. 4th pit  
 not known about.

Ken Saranay w/ EBI  
 ~25 yrs. here probably  
 has historical knowledge.  
 Alicia Dean-Nettles

985 855 0112, 373-4275  
 call numbers for current  
 access.

G+H Barges use waterway.  
 Shawn Nettles other contact.  
 Possible sampling in  
 March/April of this year

1134 Property on water  
 boundary to the south for sale.  
 Century 21 Action Realty  
 868-43-4663. Currently  
 F+M <sup>2nd</sup> Mafro resides on.

1140 Overflow weir at  
 south end of last pit,  
 observed. Also observe hose  
 coming out of bottom of

Michael Brown

01-10-12

TO-0019-11-10-01

berm on south end. Have  
 series of valves to control  
 water level within pits.

1203 Depart Delta Shipyard.  
 1400 Arrive at Cambridge Dr.  
 in Laplace, LA. Find empty  
 fenced property that could  
 have been former treatment  
 plant. All other properties  
 along Cambridge residential  
 or commercial. Find current  
 water trmt. plant where  
 Cambridge dead ends onto  
 Woodland Dr.

1500 Depart Laplace, LA  
 for New Orleans airport.

Michael Brown

6 06 7/8  
08-08-12

TD-0019: 11-10-01

0730 START-3 M. Brown arrives on site at Delta Shipyard. Meets START-3 representatives J. Wright, R. Sherman, E. Bay + L. Howard. Subcontractors on site for geo-probe drilling + laying down tracks to access locations.

0800 H+S tailgate meeting conducted. Logged in separate logbook for removal tasking.

0955 Sample DSE-04 collected. Details in removal log. All sample collection details will be part of a separate logbook.

*M. Brown*

08-08-12

TD-0019-11-10-01

0730 START-3 M. Brown + Larry Howard meet EPA Brenda Cook and subcontractor S. Miguez with Quality Marine Service Inc. at public boat docks to conduct surface water sampling.

0830 Arrive at sampling location HNC-05. The furthest downstream

sample location within the Houma Navigation Canal. Lat. 29.53762, Long. -90.70495 Collect surface water sample

0950 Collect sediment sample from location HNC-05

0930 Arrive at sample location DC-01, a background sample location in ship channel off Dickson. Lat 29.545533, Long -90.70285. Collect surface water sample.

0940 Collect sediment at location DC-01.

*Mike Brown*

08-08-12 TO-0019-11-10-01  
 1000 Arrive at sample location HNC-04 located within the Houma Navigation Canal at Lat 29.55012°, Long. -90.704244. Collect surface water sample.  
 10:10 Collect sediment sample from location HNC-04.  
 10:30 Arrive at sample location HNC-03 located within the Houma Navigation Canal going upstream off HNC-04 at Lat. 29.55266, Long. -90.70714. Collect surface water sample.  
 10:40 Collect sediment sample from location HNC-03.  
 11:00 Arrive at sample location HNC-02 located within Houma Navigation Canal before confluence with Bayou La Carpe. This is a background location at Lat. 29.55591, Long. -90.707648. Collect surface water sample.

08-08-12 TO-0019-11-10-01  
 Water sample -  
 11:10 Collect sediment sample at location HNC-02.  
 11:30 Arrive at sample location HNC-01. This location is within the Houma Navigation Canal mid-point between the Intercoastal Waterway + confluence with Bayou La Carpe. This is a background location at Lat. 29.562787, Long. -90.711756. Collect surface water sample.  
 11:45 Collect sediment sample at location HNC-01.  
 12:00 Break for lunch.  
 Weather turns bad and thunderstorms enter the area. Wait for weather to clear to conduct further sampling on water.  
 14:30 Return to water to conduct further sampling.

08-08-12

TO-0019-11-10-01

Due to time, only one more sample will be collected for the day.

1505 Arrive at sample location BLC-04 within Bayou La Carpe. This location has additional volume collected at it for MS/MSD QC. Location at Lat. 29.55789, Long. -90.70390. Surface water sample collected.  
 15:15 Sediment sample collected from BLC-04.  
 15:30 Return to boat dock. Complete sampling for day. Get sample location BLC-04 to hotel for sample processing.

*Michael Brown*

08-09-12

TO-0019-11-10-01

07:30 START-3 M. Brown, L. Howard + EPA B. Cook arrive at Houma public boat dock to meet Quality Marine Service representative S. Miguez. Depart to begin surface water pathway sampling for the day.

08:15 Arrive at sample location MPC-01 located within a ship channel off Main Port. This is a background location at Lat. 29.55879, Long. -90.70216. Collect surface water sample.  
 08:30 Collect sediment sample at location MPC-01.

08:35 Arrive at location BLC-03 within Bayou La Carpe, Lat. 29.56079, Long. -90.70456. Collect surface water sample.  
 08:40 Collect sediment sample at location BLC-03.  
 09:10 Arrive at sample

*M. Brown*

12

08-09-12

TB-0019-11-10-01

location BLC-02 within Bayou La Carpe upstream of confluence with Company Canal. This is a background location at Lat. 29.56813, Long. -90.709 my 29.56215); Long. -90.70552. Surface water sample collected.

09:15 Sediment sample collected at location BLC-02.

09:30 Arrive at sample location BLC-01 within Bayou La Carpe mid-point between the Intercoastal Waterway and confluence with Company Canal. This is a background location at Lat. 29.56813, Long. -90.70913. Collect surface water sample.

09:40 Collect sediment sample from location BLC-01.

09:55 Arrive at sample location CC-04 located within Company Canal

13

08-09-12

TB-0019-11-10-01

at Lat. 29.56396, Long. -90.70451. Collect surface water sample.

10:00 Collect duplicate of surface water sample at CC-04 location.

10:05 Collect sediment sample at location CC-04.

10:10 Collect duplicate sediment sample from location CC-04.

10:30 Arrive at sample location CC-03 within Company Canal. ~~at the PPE~~, Located just downstream of the PPE, at Lat. 29.56396, Long. -90.70446. Collect surface water sample.

10:35 Collect sediment sample at location CC-03.

10:50 Arrive at sample location CC-02 with Company Canal at the PPE. Lat. 29.56474, Long. -90.704517. Collect surface water sample.

08-09-12

TD-0019-N-10-01

Water sample. —  
 11:00 Collect sediment  
 sample from location  
 CC-02. —

11:10 Arrive at sample  
 location CC-01. This  
 location is within Company  
 Canal upstream of the  
 site and is a background  
 sample. Lat. 29.560048,  
 Long. -90.702313. Collect  
 surface water sample.

11:15 Collect sediment sample  
 from location CC-01. —

11:30 Head back to boat  
 dock. Surface water  
 pathway sampling concluded.

12:00 Deliver samples to  
 hotel for sample processing.  
 Late entry - Health +  
 Safety tailgate meetings  
 are noted within a separate  
 logbook. All boat safety  
 procedures were followed  
 and life vests worn. —

— Micaela Stor —

TD-0019-N-10-01

08-09-12  
 This logbook only covers  
 a site visit conducted  
 during January 2012  
 and surface water  
 sampling conducted 8 and  
 9 August 2012. All other  
 events related to sampling  
 covered under a separate  
 logbook, related to  
 tasksings conducted  
 under TD-0005-12-05-84-01.  
 End of log day. —

Mic  
haela  
Stor



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DELTA SHIPYARD  
PITS  
RE ASSESSMENT

TO-0005-12-04-01  
W/L #20406.012.005.0725.01

TU-0005-12-04-01

- START-3 HAS BEEN TASKED TO CONDUCT Removal Assessment SAMPLING ACTIVITIES AT THE Delta Shipyards SITE IN Houma, Terrebonne Parish, LA (210 Dean Court, Houma, LA) -
  - SAMPLES TO INCLUDE SURFACE & SUBSURFACE ~~Soil~~ Soil Samples, Water Samples, Sediment Samples & Waste/Soil Samples.
  - SEE QASp FOR SAMPLE Location MAP & Sampling Protocol.
  - START TO PROVIDE Field Lab SUPPORT FOR HRS ASSESSMENT ACTIVITIES AS WELL, WHICH WILL BE CONSULTED AT THE SAME TIME UNDER TDD.TG-0019-11-10-01
- [Handwritten signature]*

TU-0005-12-04-01

8/5/12

- 1500 STARTS JEFF WRIGHT, ERIC BRY & ROBERT SHERMAN AT BATON ROUGE OFFICE TO LOCATE EQUIPMENT. — *(Signature)*
  - 1510 STARTS E.BRY & R.SHERMAN ENROUTE TO BR Warehouse TO PICK UP REMAINING SUPPLIES
  - 1525 START LORRY HOWARD AT OFFICE, PLACE ALL SAMPLE JARS INTO ENTRY COOLERS. — *(Signature)*
  - 1610 R.SHERMAN & E.BRY TRUCK AT OFFICE, BEGIN LOADING REMAINING SUPPLIES. — *(Signature)*
  - 1700 STARTS JEFF WRIGHT, R.SHERMAN, L.HOWARD & E.BRY DEPART Baton Rouge OFFICE FOR Houma, LA. Will Spend THE NIGHT AFTER REVIEW MEETING FOR SAMPLING ACTIVITIES.
  - 1905 ARRIVE AT COMFORT INN & SLEEP IN Houma, LA. — *(Signature)*
  - 1945 STARTS J.WRIGHT, E.BRY, R.SHERMAN & L.HOWARD MEET TO REVIEW HAST & Tomorrow's ACTIVITIES. — *(Signature)*
- [Handwritten signature]*

8/5/12

TO-0005-12-04-01

2030 START Mark Barroff is flying into New Orleans & will meet with Michael Brown and then drive to Houma, LA.



TO-0005-12-04-01

8/6/12

0705 STARTS Jeff Wright, Robert Sherman, Mark Barroff, Eric Byr & Larry Howins report hotel for Delta Shipyards site.

0730 NEWTON SUGAR GUINS & EDI City Council Area OWS 155. NEWPORT will provide road mats for GLOMBOF access. EDI will provide geoponate. START Michael Brown also OWS 155. 

0740 R. Sherman & M. Brown are, marking Ditch Sample Locations. 

0750 START WILMINGTON PROVIDES SITE OVERVIEW WORK 2184 NEWPORT & EDI PERSONNEL

0810 START WILMINGTON & NEWPORT GUINS PROVIDE DAILY SAFETY MEETING. WEATHER - Sunny HUMID & HOT HIGH IN LOW 90'S 40% CHANCE OF THUNDERSTORMS SCOTT OR WILLIE. NEWPORT TO LAY OUT next ROAD ALONG Dhowar Ditch; EDI to  13000110

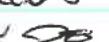
8/6/12

TO-0005-12-04-01

0810 cont. use Swant Master  
Geoprobe to collect subsurface  
soil samples. Start to

process samples for sediment.  
Physical Hazards. Heat Stress

Heavy Equipment, Pinch Points,  
Unstable Terrain. — 

Chemical Hazards. Pits/  
Hazardous, Lead, Cadmium &  
Xenon. — 

Attendees

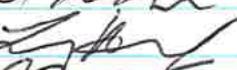
JEFF Ichigut

Signature

ROBERT SPERAN



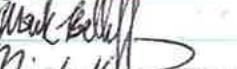
LARRY HOWARD



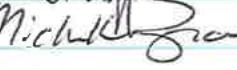
ERIC BAY



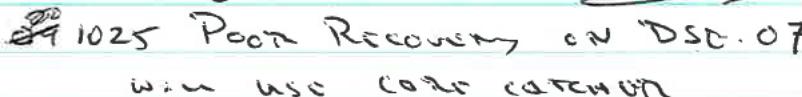
MARK BARNETT



MICHAEL BROWN Michigan



0900 EDI setting up Geoprobe on  
DSC-04. — 

 1025 Poor Recovery on DSC-07  
will use core catcher

1100 EDI continuing Admision room  
for DSC-04 — 



TO-0005-12-04-01

8/6/12

1155 Starts Process in Samples

Re DSC-7 — 1220 Break for Lunch. — 1305 Delivery Samples DSC-04,  
+7 to Team Brown to  
complete CDP paperwork.

1330 Starts Brown & Sherman +  
EDI Brenda Cook processing  
sample DSC-10. Sample DSC-10  
33-340 (Jeff Ronsato HAC also  
been collected. — 

1415 EDI has moved to Pit 2  
(DSC-02) to assess geo-  
probes ability to collect  
samples. — 

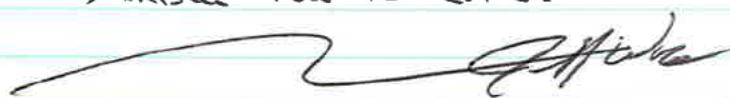
1500 Geoprobe was able to  
collect sample from middle  
of Pit 2 however it became  
stuck and had difficulty  
getting out. It is apparent  
that geoprobe will not  
be able to access middle  
of pits. 1100 - Start  
C-Bay is at Hotel Admision  
with Sample Management


 13000111

8/6/12

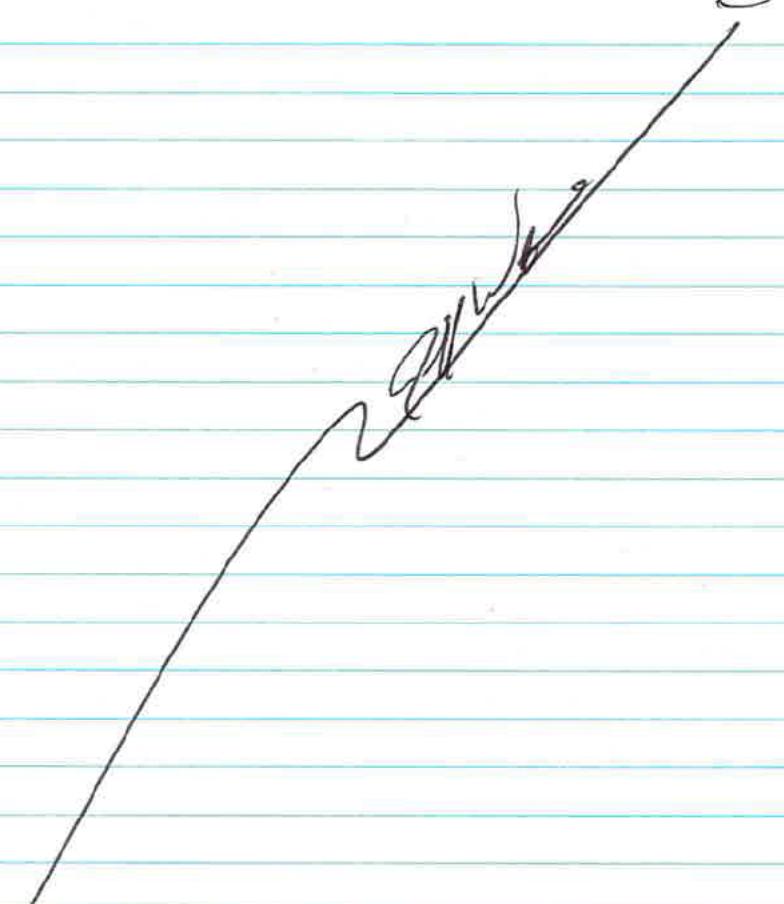
TO-0005-12-04-01

- 1615 EDI command to collect subsurface sample from Pit 2. Gun to 12' bus.  
away from 11-12'.  
1645 Sample looks (within twice)  
depth to have only contamination  
thickness = 8-10' bus. — 
- 1730 Note - Machine Breaks is at  
motor to assist with sample  
management & processing. —   
Sample DSD-02-24-413, DSE-02-  
48-413, DSG-02-72-413, DSC-02-  
96-413, DSP-02-120-413, DSU-02-  
144-413 were collected at  
1640 (24+48), 1710 (72+96) &  
1725 (120+144) — 
- 1800 Start weight at motor, Sample  
management continues.
- 1845 S. Wright & L. Howard TO  
FED Ex with VOA samples  
other sample not ready.
- 1900 Arrive at FED Ex. Drop off  
VOA samples. FED Ex changed  
airline due to "Loft".



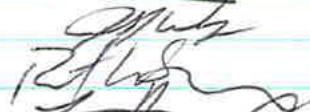
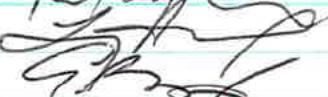
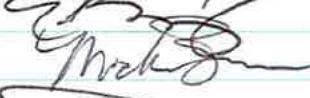
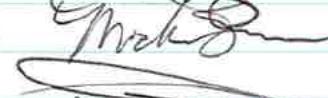
8/6/12

TO-0005-12-04-01

- 1935 Back at motor. Have Meeting  
with Sample Management Team  
to discuss improved communication  
& process status to effectively  
process samples. — 
- 

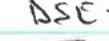
8/7/02

TO-0005-12-04-01

- 0640 STARTS J. WILSON, R. SHERMAN  
ARRIVE AT DOLTA, SPRINGSITE SITE.  
BEG. PREPARE SAMPLE PROCESS AREA.
- 0655 ET & BRENT COOK & START  
M. BROWN ARRIVES ON SITE.
- 0705 STARTS L. HOWARD & E-BAY  
ON SITE. M. BALNOFF REMAINS AT  
MOTOR TO PROCESS SAMPLES.
- 0730 J. WILSON CONDUCTS DAILY  
SAFETY MEETING. Weather  
Mostly, Sunny Humid = 75°  
Humid in low 90's. Physical  
Hazards - Heat Stress, Sun  
TRIP Fan, unventilated interior  
Chemical Hazards. PAHs / HAPs  
TENE, LEAD, CHROMIUM & XYLOOL  
Attendees Signatures
- JEFF Wilson   
ROBERT SHERMAN   
LARRY HOWARD   
ERIK BAY   
MICHELLE BROWN   
ERIK HADWIN 

8/7/02

TO-0005-12-04-01

- 0735 START ERIK HADWIN ARRIVES  
AT SITE, PROCEEDS TO COMCAST  
INN TO DROP OF PLATED PARCEL
- 0740 EDT PREPARE ENVIRONMENT FOR  
TODAY'S WORK. 
- 0805 SET-UP AT DSE-13 
- 0845 STARTS R. SHERMAN & M. BROWN  
PROCESSING SAMPLES DSE-13-12-515,  
DSE-13-24-515 & DSE-13-48-515.   
SAMPLES LOCATED WEST OF PIT 3.
- 0900 PROCESS SAMPLES DSE-13-72-515 &  
DSE-13-96-515 
- 0930 DELIVER DSE-13 SAMPLES TO  
MARK BALNOFF (SAMPLE MANAGEMENT)
- 1000 START PROCESS/COLLECTING SAMPLE  
DSE-16 
- 1030 START WILSON PROCESS DSE-16  
SAMPLES (DSE-16-12-515, DSE-16-24-515,  
DSE-16-48-515) & DSE-72-515 & DSE-16  
-96-515) TO SAMPLE MANAGE-  
MENT TENT (M. BALNOFF & E. BAY)
- 1045 STARTS ROBERT SHERMAN & ERIK  
HADWIN PROCESS SAMPLES DSE-  
06 SAMPLES   


8/7/12

TO-0005-12-04-01

1130 START PROCESSING SAMPLE

DSE-CF. EDI BLOCKS FOR  
LUNCH.

1215 START WEIGHT PROCESS

SAMPLES DSC-16 + DSC-06 TO

SAMPLE MANAGEMENT TEAM — 

1220 START WEIGHT COLLECTS

REVERSE SENDS (FOR SCIN AFTER  
DSE-08) — 

1300 STARTS ON LUNCH BLOCK

1320 EDI TO RESUME GEOPROBE

WORK IN PIT 1 — 

1350 DENVER SAMPLE DSE-08

TO SAMPLE MANAGEMENT TEAM

NO ADDITIONAL CLP SAMPLES  
WILL BE COLLECTED TODAY.NOTE: MICHAEL BROWN HAS  
BEEN ASSISTANT WITH SAMPLE  
MANAGEMENT SINCE ~1000.

1400 EDI CONTINUES GEOPROBE

SAMPLE COLLECTION TO DEPTH

OF 12': WILL COLLECT  
FOUR SAMPLES (0'-12') FROM  
PIT 1. ONE FROM EACH CORNER.

TO-0005-12-04-01

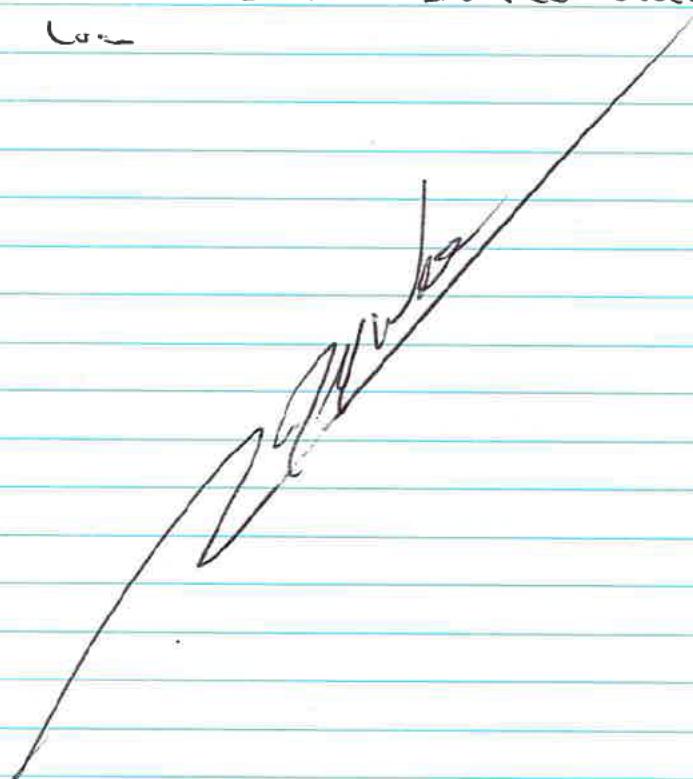
8/7/12

1530 EDI CONTINUES SUBSURFACE  
SAMPLE COLLECTION FROM PIT 1

1600 START E. HOWARD + L. HOWARD

CUTTING OPEN CORES TO LOC. 

1648 EDI OFF SITE FOR THE DAY.

1715 BACK AT MUDER TO ASS-ST WITH  
SAMPLE SUPPORT TRP. SAMPLE  
+ LOC<sup>4</sup> LISTED IN SAMPLE COLLECTION  
LOC.

8/8/12

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0630 STARTS JEFF WRIGHT, ERIN HARRIS,  
 LARRY HOWARD, MARK BENDOFF &  
 ERIC BAY meeting at hotel for  
Morning Safety Meeting — ~~Q~~  
Weather Mostly sunny plan  
 on low 90's. 40% chance of Thunder-  
 storms. Physical Hazards -  
Water E&E: Uneven Terrain,  
 Slip/Fall/Fall, Heat Stress  
Chemical Hazards PAHs/Naphthalene  
 Lead, Cadmium & Xylene — go  
Scope of Work: Water & Sediment  
 Sampling, Soil & Waste Sampling  
 SAMPLE PROCESS & Sample Management.

Witnesses

JEFF WRIGHT

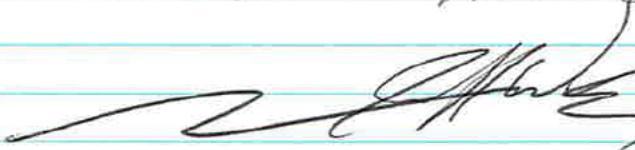
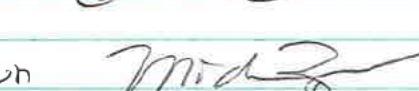
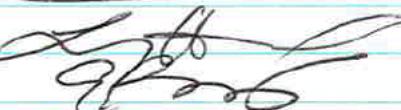
ERIN HARRIS

LARRY HOWARD

ERIC BAY

MARK BENDOFF

MICHELLE BROWN

Signature

TO-0005-12-04-01

8/8/12

0645 STARTS WRIGHT & HARRIS AT  
 DSEA-S120YRD SITE, BEGIN  
 PREPARING SORTIE PROCESS ARCH.  
 START MICHELLE BROWN &  
 EPA BRENTA COOK ASSESSMENT.

0710 START MEET WITH BOAT  
 OPS CONTRACTOR (CHARLIE PARK,  
 JR) QUALITY MARINE, WHO  
 WILL PROVIDE BOAT ACCESS TO  
 WATER SAMPLE LOCATIONS. — ~~Q~~  
 0740 CONDUCT BOAT OP MEETING.

0800 IN BOAT CAPTURE INSTRUMENTATION.  
 WEAR LIFE JACKETS. START  
 SAMPLE TEAM WILL BE MICHELLE  
 BROWN, LARRY HOWARD & EPA  
 BRENTA COOK.

0845 STARTS E-BAY, HHS BROWN &  
 WATER/Sediment Sampling  
 CONTINUING.

0850 EPA (GEOPROBE CONTRACTOR)  
 CBLY CONTRACTOR IS SET UP  
 AT DSE-20 (SE OF PIT 3) TO  
 COLLECT SUBSURFACE SAMPLES.

0855 STATE HARRIS PROCESS &  
 SAMPLES FOR DSE-20 LOCATIONS



13000115

8/8/12

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0930 START WALKING DOWNS DSE-20  
SAMPLES TO HOTEL FOR SAMPLE  
MANAGEMENT PROCESSING. NOTE:

START SARAH HITCHCOCK IS AT  
MOTEL TO HELP WITH SAMPLE  
SINTERMENT PREP. ————— (S)

0955 START WALKING BACK AT SITE  
START E. HOLLOWAY PROCESS / COUNTDOWN  
DSE-05 SAMPLES... EDI PREPARATION  
EQUIPMENT TO ENTER AND  
SAMPLE PIT #3 AREA (DSE-03).

1030 EDI COUNTDOWN REPORTS THAT  
THEY ARE HAVING DIFFICULTY  
WITH SAMPLE RECOVERY AT SINTER  
B (NE CORNER). ABLE TO GET  
CORE OF 2 TO 4' BUT THAT  
BETWEEN 4 TO 8 FEET IS VERY  
LOOSE & UNABLE TO RETAIN  
IN TUBE. WILL MOVE TO  
SOUTHWEST CORNER (STATION A).

1100 START HOLLOWAY PROCESSING THE  
4'-6' (DSE-05-J2-515) & 6'-8'  
(J50-05-96-515) SAMPLE SECTIONS.

1130 EDI COUNTDOWN STATES THAT  
SAMPLE RECOVERY PROBLEMS  
————— (S)

8/8/12

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1130 CONT'D. AT STATION A OR 2+3.  
SOME RECOVERY IN 0-4' SECTION,  
BUT LITTLE TO NO RECOVERY  
BELOW. THEY ARE ENCOUNTERING  
WOOD, ROCKS & ABOVE 6'.  
BGS. THE 0'-4' SECTION IS  
ONLY IN APPENDAGE WITH A  
PETROLEUM ODOR. NO PETROLEUM  
ABOVE BACKGROUNDS OF MULTI-RDB.

1145 EDI MOVE ON GEOPROBE TO  
NW STATION C. ————— (S)

1200 START WALKING DELIVERY  
SAMPLES DSE-05 TO MOTEL FOR  
PROCESSING ————— (S)

1230 WALK SAMPLE TEAM BACK AT  
MOTEL WITH WATER & SINTER  
SAMPLES. COLLECTED SAMPLE  
FROM THE 6 MOST DOWNSTREAM  
LOCATIONS. WILL ATTEMPT TO  
COLLECT ADDITIONAL SAMPLES.  
START WALKING INFORMED M. BROWN  
THAT THE AMOUNT OF SAMPLES  
CURRENTLY WITH SAMPLE MANAGE-  
MENT TEAM WOULD BE IN THAT  
CLOUD BE PROCESSED TODAY  
————— (S)

8/8/12

TO-CCC5-12-04-01

1230 cont - and shipped out today  
 M. Brown said she understood  
 but the EPA crew wants to  
 continue collection; even if  
 the samples can not go out.

1235 START WALKER & HEDDEN BREAK  
 FOR LUNCH.

1300 START WALKER & HEDDEN BACK  
 TO SITE. EDI continues stating  
 that similar recovery results  
 occurred at Sistrom C&D. He  
 said that there may be a  
 buried roadway around the  
 perimeter (inside) at a depth  
 of 6 or 7 feet bgs. The pit  
 area is too wet & smelly  
 for GOREPRO to access areas  
 of the pit closer to the  
 middle. START WALKER has  
 requested that a 12' bgs  
 core be collected just  
 outside the SE corner  
 (near PSC-20) to provide  
 core sample for leaching.

8/8/12

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1330 EDI occurring Swanson Master  
 will return equipment to  
 Barron Room. EDI will bring  
 smaller unit to complete  
 geologic activities at DSC-11  
 & DSC-14. Will also collect <sup>(ed)</sup>  
 approximately 4 cores from  
 area between Pitts & Company  
 area to Lea & identify  
 stratigraphy.

1400 START WALKER ORDER 4oz, 1-L  
 Poly, 8oz & 40m vials along  
 with 17 containers = 200 ziplock  
 bags from Penny Newman.  
 HAVE NOT RECEIVED SAMPLE  
 containers (EXCEPT 4oz). Call  
 D. Newman for samples.

1405 START WALKER CALLED R. SWANSON  
 TO REQUEST HE FIND LAB IN  
 Barron Room to collect provide  
 40m vial (w/HG) & 1-L Poly (w/HG)

1415 START SAMPLE MANAGEMENT  
 COORDINATOR ANDRE BALTOFF HAS  
 ASKED FOR ADDITIONAL HELP  
 PREPARING SAMPLES FOR SUBMIT.

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8/8/12

1430 STARTS WHEAT & HOWARD AT  
MOTEL TO ASSIST WITH SAMPLE  
Sediment Prep.

1800 SAMPLE SHIPMENT PREP COMPLETED

1815 STARTS Bay & Howard to FEDEx  
with the samples (21 boxes).

1830 START WHEAT TO OFFICE DEPT  
& WILMINGTON FOR SUPPLIES (2x4'  
LADS), COCONUTS & 2-PIECE  
BAGS, WATER & GROUTERS.

1930 Meet with E. Bay, L. Howard,  
TO PURCHASE COUNTS Bay  
27 COCONUTS.

Note - E. Howdwin completed  
process sample DSE-05 samples  
(0-2' & 2-4'). Samples will  
be placed in container w/ice  
& locked up securing until  
shipment tomorrow.

2010 Back at motel to off load  
coconuts.

2030 Note - Howdwin removed mat  
road pieces & consolidated  
onsite.

*Signature*

TO-0005-12-04-01

8/9/12

0700 STARTS JEFF WHEAT,  
ERIC HOWARD, ERIC BAY, LARRY  
HOWARD & MARK BROWNSKE TO  
REVIEW TODAY'S WORK ACTIVITIES.

Scope of Work - COMPLETE

Geoprobe coring activities,

Collect cores for bore

locations, collect water &

sediment samples, sample  
management team will be

Mark Brownske, Eric Bay & Sample  
Hickcock, Water/Sediment

Sampling Team will be Larry

Howard, Adrienne Brown & EPA

Brown Cook. SAMPLE PROCESS &  
collection Team is Eric Howd  
& Jeff Wheat. Physical Hazard

SURFACE/FIRE, Boat Ops,

HAZ STRAITS - ~~CORROSION HAZARD~~

BIA/HAPTOGENIC, Lead, Cadmium

+ XYLENE. HAZ. Are non-existent

with these. Risk has shown no

readings above background

to date.

*Signature*

TO-0005-12-04-01

8/9/12

0700 cont'd' Moanual Has received

ATTENDEES

JEFF WHEAT

ERIC HADWIN

LARRY HOWARD

ERIC BRY

MARIE BACHOFF

MICHAEL BROWN

SIGNATURE

0715 STARTS WHEAT &amp; HADWIN TO SITE FOR GEOPROBE LINE SAMPLE

0730 STARTS WHEAT &amp; HADWIN

MARK SAME LOCATION DSE-11 &amp;

DSE-14. ALSO MARK 5 LOCATIONS.

(BL1-BL5) WHICH WILL BE USED TO LOC SON CORES ONLY  
(NO STATIC CONNECTION) - 

0810 EDI Copy Screens &amp; ASSISTANT ON SITE WITH TRACTOR GEOPROBE

0830 Review SITE ACTIVITIES AND

SAMPLE LOCATIONS WITH EDI.

0850 EDI SET UP AT DSE-11 -

0925 START WHEAT RECEIVES CALL FROM E-HADWIN. SAMPLE FROM DSE-11 IS VIRTUALLY CONTAMINATED FROM 2-3 TO 6.5 FT BL5.

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8/9/12

0925 cont'd - TREATMENT, DSE-11

SAMPLE SITE COLLECTION POINT

WILL BE MOVED FURTHER EAST

TOWARDS COMPANY LINE, SINCE

IT IS THE EXTENT OF CONTAMINATION

SANTO. IT (DSE-11) WILL NOW

BE COLOCATED WITH BL-3

LOCATION. THE INITIAL DSE-11

LOCATION (ADJACENT TO PEG-2 BORE)

WILL NOW BE NAME BL-6 AND

A WELL LOG SURVEY WILL BE CONDUCTED.

1030 START WHEAT HAS DELIVERED SAMPLES DSE-11-12-515, DSE-11-24-515 TO SANTO MANAGEMENT TEAM AT HOTEL.

1118 START HADWIN COLLECTING

SAMPLE DSE-11-72-515 &amp;

DSE-11-96-515

1130 EDI SET UP GEOPROBE AT

DSE-14

1145 E-HADWIN COLLECTS SAMPLES

DSE-14-12-515, DSE-14-24-515

&amp; DSE-48-515

1220 M. BROWN STATES THAT